

HAROLD VINCENT POOR

CONTACT INFORMATION:

Electrical and Computer Engineering
Princeton University
Princeton, NJ 08544 USA

Phone: +1 (609) 258-1816
Email: poor@princeton.edu
Web: www.princeton.edu/poor

EDUCATION:

Princeton University, Princeton, New Jersey

Ph.D. in Electrical Engineering and Computer Science, 1977
M.A. in Electrical Engineering, 1976

Auburn University, Auburn, Alabama

M.S. in Electrical Engineering, 1974
B.E.E. with Highest Honor, 1972

EMPLOYMENT AND EXPERIENCE:

Principal Employment

Princeton University

Michael Henry Strater University Professor, 2005 - present
Professor of Electrical and Computer Engineering, 1990 - present
Associated Faculty, Center for Statistics and Machine Learning, 2014 - present
Associated Faculty, Andlinger Center for Energy and the Environment, 2012 - present
Associated Faculty, High Meadows Environmental Institute, 2006 - present
Associated Faculty, Department of Operations Research & Financial Eng'g, 2001 - present
Associated Faculty, Program in Applied and Computational Mathematics, 1996 - present
Acting Chair, Electrical and Computer Engineering, Fall 2022-23
Interim Dean, School of Engineering and Applied Science, 2019-20
Dean, School of Engineering and Applied Science, 2006-16
Founding Director, (Keller) Center for Innovation in Engineering Education, 2005-06
George Van Ness Lothrop Professor in Engineering, 2003-05

University of Illinois at Urbana-Champaign

Beckman Associate, Center for Advanced Study, 1989-90
Professor, Beckman Institute for Advanced Science and Technology, 1988-90
Professor of Electrical and Computer Engineering, 1984-90
Research Assistant, then Associate, then Full Professor in the Coordinated Science Lab, 1977-90
Assistant, then Associate, Professor of Electrical Engineering, 1977-84

Visiting Positions

Imperial College London

Visiting Professor, Electrical and Electronic Engineering, 2004 - present
Royal Academy Distinguished Visiting Fellow, Electrical and Electronic Engineering, Fall 2012
Academic Visitor (as a Guggenheim Fellow), Mathematics, Fall 2003
Senior Visiting Fellow, Centre for Process Systems Engineering, Fall 1993
Academic Visitor, Electrical Engineering, Fall 1985

Selected Other Visiting Positions:

Fellow, Hagler Institute for Advanced Study, Texas A & M University, 2018-23
Miller Visiting Research Professor, University of California, Berkeley, Spring 2017
Visiting Scholar, Isaac Newton Inst. for Mathematical Sciences, Cambridge Univ., Fall 2016
Visiting Professor, Electrical Engineering, Stanford University, Winters 2004 & 2013
Visiting Scholar, Engineering and Applied Sciences, Harvard University, Spring 2004

RECOGNITION:

Election to National and International Academies

Member, American Academy of Sciences and Letters (elected 2024)
Corresponding Member, Australian Academy of Science (elected 2024)
Honorary Fellow, Indian Academy of Sciences (elected 2023)
Foreign Fellow, Indian National Science Academy (elected 2023)
Foreign Fellow, Royal Society of Canada (elected 2021)
Corresponding Member, Heidelberg Academy of Sciences (elected 2020)
Foreign Member, Chinese Academy of Sciences (elected 2017)
Honorary Member, National Academy of Sciences, Republic of Korea (elected 2017)
Foreign Member, National Academy of Engineering of Korea (elected 2017)
Fellow, National Academy of Inventors (U.S.) (elected 2015)
Fellow, The World Academy of Sciences (elected 2015)
Foreign Member, The Royal Society (U.K.) (elected 2014)
Foreign Member, Academia Europaea (elected 2013)
Corresponding Fellow, Royal Society of Edinburgh (elected 2013)
Member, National Academy of Sciences (U.S.) (elected 2011)
International Fellow, Royal Academy of Engineering (U.K.) (elected 2009)
Fellow, American Academy of Arts & Sciences (elected 2005)
Member, National Academy of Engineering (U.S.) (elected 2001)

Fellowships in Learned Societies

Fellow, International Union of Radio Science (URSI) (elected 2017)
Fellow, Institution of Engineering and Technology (IET) (elected 2012)
Fellow, American Society for Engineering Education (ASEE) (elected 2003)
Fellow, Optical Society of America (now Optica) (elected 2001)
Fellow, Institute of Mathematical Statistics (elected 2001)
Fellow, American Association for the Advancement of Science (elected 1991)
Fellow, Institute of Electrical and Electronics Engineers (IEEE) (elected 1987)

Honorary Degrees & Professorships

Doctor of Engineering *honoris causa*, University of Waterloo (2019)
Doctor of Science *honoris causa*, Syracuse University (2017)
Honorary Professor, Peking University (appointed 2017)
Honorary Professor, Tsinghua University (appointed 2017)
Doctor of Science in Technology *honoris causa*, Aalto University (2014)
Doctor of Engineering *honoris causa*, HKUST (2012)
Doctorem Technices honore causa, Aalborg University (2012)
Doctor of Science *honoris causa*, University of Edinburgh (2011)

Selected Recognition of Research & Technical Contributions

Hall of Fame Award, IEEE Vehicular Technology Society (2021)
Alexander Graham Bell Medal, IEEE (2017)
Booker Gold Medal, URSI (2014)
Norbert Wiener Society Award, IEEE Signal Processing Society (2011)
Ambrose Fleming Medal for Achievement in Communications, IET (2010)
Edwin Howard Armstrong Achievement Award, IEEE Communications Society (2009)
Fellow, John Simon Guggenheim Memorial Foundation (selected 2002)

Selected Recognition for Teaching, Mentoring & Educational Contributions

Carl Friedrich Gauss Education Award, IEEE Signal Processing Society (2022)
Benjamin Garver Lamme Award, ASEE (2019)
Outstanding Mentorship Award, IEEE Women in Communications Engineering (2015)
Athanasios Papoulis Award, European Association for Signal Processing (2015)
James H. Mulligan, Jr., Education Medal, IEEE (2005)

Paper Awards (Journals - Selected)

IEEE Marconi Prize Paper Award in Wireless Communications (2023)
Hot Paper Award, *Science China Information Sciences* (2023)
IEEE ComSoc CSIM Technical Committee Best Journal Paper Awards (2018 & 2023)
Top 5 Paper Award over the Previous 3 Years, *IEEE Transactions on Smart Grid* (2022 & 2023)
IEEE Signal Processing Society Best Paper Award (2022)
IEEE Communications Society Fred Ellersick Prize (2020)
IEEE Vehicular Technology Society Jack Neubauer Memorial Award (2018)
IEEE Communications Society Heinrich Hertz Prize Paper Award (2018)
IEEE Signal Processing Letters Best Paper Award (2018)
Best Paper Award, Ministry of Science and ICT of Korea (1st prize) (2017)
Best Paper Award, German Information Technology Society (ITG-Preis) (2016)
Best Paper Awards, *EURASIP J. Wireless Communications & Networking* (2006, 2009 & 2014)
Best Paper Award, *EMO Bilmisel Dergi* (2013)
IEEE Information Theory Paper Award (2011)
IEEE Marconi Prize Paper Award in Wireless Communications (2007)
Joint Paper Award, IEEE Communications and Information Theory Societies (2000)

Paper Awards (Conferences - Selected)

IEEE International Conference on Communications (Denver, 2024 - 2 awards)
IEEE Global Communications Conference (Kuala Lumpur, 2023)
International Conference on Machine Learning (Baltimore, 2022)
IEEE Global Communications Conference (Madrid, 2021 - 2 awards)
IEEE Wireless Communications & Networking Conference (Nanjing, 2021)
IEEE Global Communications Conference (Taipei, held online, 2020 - 2 awards)
IEEE Int'l Symp. Personal, Indoor & Mobile Radio Commun. (London, held online, 2020)
IEEE International Conference on Communications (Dublin, held online, 2020 - 2 awards)
IEEE International Conference on Communications (Shanghai, 2019)
IEEE International Conference on Communications (Kansas City, 2018)
IEEE International Conference on Communications (Paris, 2017)
IEEE Global Communications Conference (San Diego, 2015)
IEEE Power & Energy Society General Meeting (Denver, 2015)
IEEE Power & Energy Society General Meeting (Vancouver, 2013)
IEEE International Conference on Communications (Budapest, 2013)
IEEE Wireless Communications & Networking Conference (Shanghai, 2013)
IEEE Global Communications Conference (Houston, 2011)
IEEE Int'l Symposium on Personal, Indoor & Mobile Radio Communications (Tokyo, 2009)
IEEE International Conference on Communications (Beijing, 2008)
IEEE Global Communications Conference (New Orleans, 2008)

Named Lectures (Selected)

Jones Lecture, Villanova University (2024)
Blake Lecture, University of British Columbia (2021)
Chien Lecture, University of Illinois at Urbana-Champaign (2017)
Viterbi Lecture, University of Southern California (2015)
Nunan Lecture, Syracuse University (2015)
Mercer Lecture, Rensselaer Polytechnic Institute (2015)
Linnaeus Lecture, Royal Institute of Technology, Stockholm (2013)
Armstrong Lecture, Columbia University (2010)
Welling Lectures, George Washington University (2010)
Descartes Lecture, University of Ulm (2008)
(Inaugural) Lytle Lectures, University of Washington (2008)
Jury Lecture, University of Miami (2006)
Nokia Lectures, University of Oulu & Helsinki University of Technology (2006)
Edison Lecture, University of Notre Dame (2005)

OTHER PROFESSIONAL ACTIVITIES:

Principal Institutional Leadership

Board of Directors, Hyster-Yale, Inc. (NYSE: HY), 2017 - present
Subsidiary boards: Bolzoni Holdings, Hyster-Yale Materials Handling & Nuvera Fuel Cells
Board of Directors, Corporation for National Research Initiatives, 2012 - present
Board of Managers, Swarthmore College, 2016-24
Board of Directors, IEEE Foundation, 2015-20
Council, National Academy of Engineering, 2014-20
Board of Governors, IEEE Information Theory Society, 1984-92, 1999-2007 & 2015-20
Council, American Association for the Advancement of Science, 2012-13
Board of Governors, IEEE - Eta Kappa Nu, 2011-13
Editor-in-Chief, *IEEE Transactions on Information Theory*, 2004-07
Board of Governors, IEEE Control Systems Society, 1988-94
Board of Directors, IEEE, 1991-92
President, IEEE Information Theory Society, 1990

Editorial Activities - Regular (Past Five Years)

Editorial Board, *Proceedings of the National Academy of Sciences*, 2021 - present
Editorial Board, *Minimax Theory and Its Applications*, 2021 - present
Editorial Board, *Open Access Book Series on Information Sciences and Learning* (NOW publishers), 2021 - present
Advisory Board, *Entropy*, 2021 - present
Editorial Board, *Princeton University Library Chronicle*, 2020 - present
Editorial Board, *Springer-Nature Computer Science*, 2019 - present
Editorial Board, *Frontiers of Information Technology & Electronic Engineering*, 2019 - present
Advisory Board, *Journal of Communications and Networks*, 2016 - present
Advisory Board, *PeerJ Computer Science*, 2015 - present
Advisory Board, *IEEE Internet of Things Journal*, 2015 - present
Editorial Board, *Foundations and Trends in Signal Processing*, 2013 - present
Steering Board, *Journal of Cyber Security and Mobility*, 2012 - present
Editorial Advisory Board, *Series on Systems and Control* (Birkhauser), 2001 - present
Advisory Board, *IET Blockchain*, 2020-23
Advisory Board, *IET Smart Cities*, 2019-23
Series Editor, *Signals and Communication Technology* (Springer), 2019-23
Editorial Board, *Foundations and Trends in Commun. & Information Theory*, 2003-22
Advisory Board, *IEEE Open Journal of Signal Processing*, 2019-21
Editorial Board, *Harvard Data Science Review*, 2018-21
Steering Committee, *IEEE Journal on Selected Areas in Information Theory*, 2017-21
Editorial Board, *Proceedings of the IEEE*, 2016-21
Founding Co-Editor-in-Chief, *IET Smart Grid*, 2018-20
Editorial Board, *Philosophical Transactions of the Royal Society A*, 2015-20

Editorial Activities - Guest Editing (Past Five Years)

Guest Co-Editor (with Xuanyu Cao, Tamer Başar, Suhas Diggavi, Khaled B. Lataief and Junshan Zhang), *IEEE Journal on Selected Areas in Communications - Issue on Communication-Efficient Distributed Learning over Networks* (Vol. 41, No. 4, 2023)
Guest Co-Editor (with Onur Günlü, Rafael F. Schaefer and Holger Boche). *Entropy - Special Issue on Information Theoretic Methods for Future Communication Systems* (Vol. 23, No. 3, 2023)
Guest Co-Editor (with Mehdi Bennis, Mingzhe Chen, Aneta Vulgarakis Feljan, Deniz Gündüz, Kaibin Huang and Walid Saad). *IEEE Journal on Selected Areas in Communications - Issue on Distributed Learning over Wireless Edge Networks* (Part I - Vol. 39, No. 12, 2021; Part II - Vol. 40, No. 2, 2022)

- Guest Co-Editor (with Kyeong Jin Kim, Octavia A. Dobre, David López-Pérez, Petar Popovski, Theodoros A. Tsiftsis and Miaowen Wen). *IEEE Journal on Selected Topics in Signal Processing - Issue on Advanced Signal Processing for Local and Private 5G Networks* (Vol. 16, No. 1, 2022)
- Guest Co-Editor (with Randall Berry, Zhu Han, Krishna Narayanan, Christos Verikoukis and Osman Yagan). *Journal of Communications and Networks - Special Issue on Communications and Networking Approaches to Combatting COVID-19* (Vol. 23, No. 5, 2021)
- Guest Co-Editor (with Woon Hau Chin and Chau Yuen). *IEEE Communications Standards Magazine - Special Issue on Emerging Security Technologies for 6G* (Vol. 5, No. 3, 2021)
- Lead Guest Editor (with Matthieu Bloch, Onur Günlü, Frédérique Oggier, Rafael F. Schaefer and Aylin Yener). *IEEE Journal on Selected Areas in Information Theory - Issue on Privacy and Security of Information Systems* (Vol. 2, No. 1, 2021)
- Guest Co-Editor (with Miaowen Wen, Zhiguo Ding, Ertuğrul Başar, Yuanwei Liu, Fuhui Zhou, Ioannis Krikidis and Mojtaba Vaezi.). *IEEE Access - Special Section on Advances in Signal Processing for Non-Orthogonal Multiple Access* (Vol. 8, 2020)
- Guest Co-Editor, (with Arsenia Chorti, Stefano Tomasin, Marco Baldi, Salim El Rouayheb and Xianbin Wang). *EURASIP Journal on Wireless Communications and Networking - Special Issue on Physical Layer Security Solutions for 5G-and-Beyond* (Vol. 2020, No. 1, 2020)
- Guest Co-Editor (with Alex Dytso). *Entropy - Special Issue on Wireless Networks: Information Theoretic Perspectives* (Vols. 21 & 22, 2019 & 2020)
- Guest Co-Editor (with Zheng Ma, Ming Xiao, Yue Xiao, Zhibo Pang and Branka Vucetic). *IEEE Internet of Things Journal - Issue on Low-latency High-reliability Communications for the Internet of Things* (Vol. 6, No. 5, 2019)
- Guest Co-Editor (with Wen Ji, Wenwu Zhu, Christian Timmerer and Zhu Li). *IEEE Journal on Selected Areas in Communications - Multimedia Economics for Future Networks: Theory, Methods and Applications* (Vol. 37, No. 7, 2019)

Organization of Technical Meetings - Leadership Roles (Past Five Years)

- Co-Organizer, Workshop on Industrial Private 5G-and-Beyond Wireless Networks, held in conjunction with the 2022 IEEE International Conference on Communications, Seoul, South Korea, May 16 - 20, 2022
- Co-Chair, Special Workshop on Communications and Networking Technologies for Responding to COVID-19, IEEE Global Communications Conference, Taipei, Taiwan, December 7 - 11, 2020
- Co-Organizer, IEEE Workshop on Edge Machine Learning over 5G Networks and Beyond, IEEE Global Communications Conference, Taipei, Taiwan, December 7 - 11, 2020
- Co-Chair, IEEE International Workshop on Privacy and Security for Information Systems, IEEE Conference on Communications and Network Security, Avignon, France, June 29 - July 1, 2020
- Co-Chair, IEEE International Workshop on Intelligent Things and Services (InThingS 2020), 21st IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, Cork, Ireland, June 15 - 18, 2020
- Program Co-Director, 54th Annual Conference on Information Sciences and Systems, Princeton, NJ, March 18 - 20, 2020
- General Co-chair, Ubiquitous 2019 - 16th EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services, Houston, TX, November 12 - 14, 2019

Organization of Technical Meetings - Other Roles (Past Five Years)

Steering Committee, ACM/IEEE NextG Summit Series, 2022 - present
Steering Committee, International Balkan Conferences on Communications and Networking, 2021 - present
Technical Program Committees, IEEE International Symposia on Information Theory: 2024 (Athens), 2022 (Espoo), 2020 (Los Angeles - online), 2019 (Paris), 2017 (Aachen), 2016 (Barcelona), 2015 (Hong Kong), 2013 (Istanbul), 2012 (MIT), 2007 (Nice), 2005 (Adelaide), 2004 (Chicago), 2002 (Lausanne), 2001 (Washington, DC), 2000 (Sorrento), 1998 (MIT), 1995 (Whistler), 1993 (San Antonio), 1990 (San Diego), 1988 (Kobe) and 1986 (Ann Arbor)
International Organizing Committee, Inter-Academy International Workshop on Future Communications and 6G, Glasgow, Scotland, June 24 - 25, 2024
Advisory Board, Workshop on Wireless Communications for Distributed Intelligence, held in conjunction with the 2022 IEEE Global Communications Conference, Rio de Janeiro, Brazil, December 4 - 8, 2022
Steering Committee, Workshop on Edge Learning for 5G Mobile Networks and Beyond, held in conjunction with the 2022 IEEE International Conference on Communications, Seoul, South Korea, May 16 - 20, 2022
Steering Committee, Workshop on Edge Learning for 5G Mobile Networks and Beyond, held in conjunction with the 2021 IEEE Global Communications Conference, Madrid, Spain, December 7 - 11, 2021
Advisory Board, Workshop on Wireless Communications for Distributed Intelligence, held in conjunction with the 2021 IEEE Global Communications Conference, Madrid, Spain, December 7 - 11, 2021
Technical Program Committee, IEEE International Conference on Microwaves, Communications, Antennas and Electronic Systems, Tel Aviv, Israel, November 1 - 3, 2021
Steering Committee, Workshop on Edge Learning for 5G Mobile Networks and Beyond, in conjunction with the 2021 IEEE International Conference on Communications, Montreal, Canada, June 14 - 18, 2021
Steering Committee, FOGML: The First International IEEE INFOCOM Workshop on Distributed Machine Learning and Fog Networks, in conjunction with INFOCOM2021, May 10 - 13, 2021
Steering Committee, Workshop on Privacy and Security of Distributed Machine Learning in 5G/6G, 2020 IEEE Global Communications Conference, Taipei, Taiwan, December 7 - 11, 2020
Steering Committee, Workshop on Edge Machine Learning over 5G Networks and Beyond, 2020 IEEE International Conference on Communications, Dublin, Ireland, June 7 - 11, 2020
Co-organizer, Special Session on "Distributed Machine Learning on Wireless Networks," at the 2020 IEEE International Conference on Acoustics, Speech and Signal Processing, Barcelona, Spain, May 4 - 8, 2020

Other Recent (Past Five Years)

Steering Committee, PREPARE: Pandemic Research for Preparedness & Resilience (NSF CISE), 2020 - present
Vice President (Honorary), Directive Board, World Cultural Council, 2020 - present
Executive Committee, C3.ai Digital Transformation Institute, 2020 - present
Technical Advisory Board, RIMEDO Labs, Poznań, Poland, 2020 - present
Advisory Board, The Institute of Electronics, Communications and Information Technology, Queen's University Belfast, UK, 2018 - present
Advisory Committee, CTIF Global Capsule, Aarhus University, Denmark, 2018 - present
Wireless Advisory Board, Auburn University, 2017 - present
Dissertation Committee of Aayushya Agarwal, Carnegie Mellon University, to defend in 2025
Panelist, "From High-Order to Filterbanks and Data-driven Signal Processing," SPCoMNet2023 Workshop on Data-driven Signal Processing, NextG Communications, and Networks, Minneapolis, MN, May 16 - 18, 2024
Dissertation Committee of Andrea Grigorescu, Technical University of Munich, Germany. 2024

Dissertation Committee of Yuhan Kang, University of Houston, 2024

Dissertation Committee of Angelo Rodio, Université Côte d'Azur, France, 2024

Dissertation Committee of Maria Raftoupolou, Delft University of Technology, The Netherlands, 2024

Class III Membership Committee, National Academy of Sciences, 2024

Membership Policy Committee, National Academy of Engineering, 2022-24

Class I, Section 5 (Engineering and Technology) Membership Panel, American Academy of Arts and Sciences, 2023

Chair, Review Committee for the School of Electrical and Computer Engineering, The Technion, 2023

Reviewer, Habilitation à Diriger les Recherches of Laura Luzzi, ENSEA, France 2023

Dissertation Committee of Sepehr Rezvani, Technical University of Braunschweig, 2023

Dissertation Committee of Merkebu Girmay, Ghent University, 2023

External Examiner, Dissertation of Krishna Chaythanya K. V., Indian Institute of Science, 2023

Executive Compensation Committee, National Academy of Engineering, 2019-23

Engineering Advisory Council, Brown University, 2018-23

Engineering Advisory Council, Purdue University, 2018-23

Distinguished Lecturer, IEEE Vehicular Technology Society, 2018-23

International Advisory Committee, National Laboratory for Pattern Recognition, Institute of Automation of the Chinese Academy of Sciences, 2015-23

Panelist, "Signal and Information Processing Advances for Federated Learning," 2022 IEEE International Conference on Acoustics, Speech and Signal Processing, Singapore, May 22 - 27, 2022

Chair, Academic Affairs Committee, Swarthmore College Board of Managers, 2019-22

Newton International Fellowships Committee: Physical Sciences, Royal Society, 2017-22

International Advisory Board, Department of Electrical & Electronic Engineering, University of Hong Kong, Hong Kong, China, 2010-22

Nominating Committee, National Academy of Sciences, 2020-21

Interdisciplinary Committee for the Selection of the Albert Einstein World Award of Science, World Cultural Council, 2013-21

Chair, Review Committee, Research Center for Information Technology Innovation, Academia Sinica, 2021

Dissertation Committee of Dadja Anade, University of Lyon, 2021

Jury Chair, Habilitation à Diriger les Recherches of Samir Perlaza, University of Lyon, 2021

Dissertation Committee of Felix Sattler, Technical University of Berlin, 2021

"Machine Learning and Wireless Communications," (with Yonina Eldar and Nir Shlezinger). Tutorial presented at the European Signal Processing Conference (EUSIPCO), Amsterdam, Holland, January 18 - 22, 2021 [online]

Committee on the Future of Electric Power in the U.S., National Academies of Sciences, Engineering and Medicine, 2019-21

Executive Compensation Committee, National Academy of Engineering, 2019-23

Reviewer, Habilitation à Diriger les Recherches of Pablo Piantanida, CentraleSupélec, 2020

"What Physical Layer Security Can Do for 6G," (with Arsenia Chorti). Tutorial presented at the 2020 IEEE Global Communications Conference (GLOBECOM), Taipei, Taiwan, December 7 - 11, 2020 [online]

Co-organizer and Moderator, Panel on "Security Challenges for a Grid in Transition" at Princeton's Andlinger Center for Energy and Environment Annual Meeting, October 30, 2020 [online]

Panelist, Webinar "AI for Good," (with Andrea Goldsmith and Tom Siebel), October 29, 2020

Thesis Jury of Daniyal Amir Awan, Technical University of Berlin, 2020

Dissertation Committee of Sebastian Johannes Baur, Technical University of Munich, 2020

"Machine Learning and Wireless Communications," (with Yonina Eldar and Nir Shlezinger). Tutorial presented at the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Barcelona, Spain, May 4 - 8, 2020 [online]

Thesis Jury of Lou Salaün, Telecom ParisTech, 2020

Board of Advisors, Schaefer School of Engineering and Science, Stevens Institute of Technology,

2017-20

Chair, Program Committee, NAE Council, 2015-20

Trustee, National Academy of Engineering Fund, 2014-20

Engineering Advisory Council, Swarthmore College, 2019

Corporation Visiting Committee for Undergraduate and Graduate Education, Massachusetts Institute of Technology, Cambridge, MA, 2018-19

Class III Temporary Nominating Group, National Academy of Sciences, 2017-19

Vice President for Development, IEEE Foundation Board of Directors, 2017-19

Chair, Development Committee, IEEE Foundation, 2017-19

Scientific Advisory Board, Center for Integrated Quantum Science and Technology, Universities of Ulm and Stuttgart, and the Max Planck Institute for Solid State Research, Germany, 2016-19

Chair, IEEE-HKN Eminent Member Recognition Committee, 2016-19

Visiting Committee, Department of Electrical and Computer Engineering, National University of Singapore, 2019

Panelist, "View on 6G Networks of the 2030s," 30th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communication, Istanbul, September 8 - 11, 2019

Dissertation Committee of Yong Zhuang, Carnegie Mellon University, 2019

Invited Seminars (Past Ten Years)

Federal Communications Commission, Washington, DC (online April 23, 2024)
Delft University of Technology, The Netherlands (April 18, 2024)
Distinguished Lecture, Villanova University, Villanova, PA (March 15, 2024)
Purdue University, West Lafayette, IN (November 10, 2023)
Texas Tech, Lubbock, TX (online October 17, 2023)
Distinguished Lecture, Technical University of Darmstadt (online July 6, 2023)
German 6G Research Innovation Center, Technical University of Berlin (online June 7, 2023)
Distinguished Lecture, Clarkson University (April 13, 2023)
German 6GEM Research Hub, Ruhr-University Bochum (online February 7, 2023)
Apple Wireless Research, San Diego, CA (online January 31, 2023)
Nanjing University of Science and Technology (online December 5, 2022)
IEEE Transactions on Network Science and Engineering Distinguished Seminar Series (online October 28, 2022)
Beijing Institute of Technology (online October 26, 2022)
Texas A&M University (October 18, 2022)
Distinguished Lecture, New Jersey Institute of Technology (September 14, 2022)
University of Ulm, Ulm, Germany (July 14, 2022)
IEEE VTS Chapters of New South Wales, Victoria, and New Zealand (online June 23, 2022)
Poznań University of Technology, Poznań, Poland (online May 16, 2022)
Texas A&M University, College Station (online May 4, 2022)
Technology Innovation Institute, Dubai (online April 13, 2022)
International Telecommunications Union, Geneva (online, March 16, 2022)
IEEE AP/EMC/VTS Joint Chapter, NJ Coast and Princeton Sections (online, March 16, 2022)
National Academy of Sciences, India, Delhi (online, March 2, 2022)
University of Science and Technology Beijing (online, January 10, 2022)
Ian F. Blake Lecture, University of British Columbia (online, November 10, 2021)
Bilkent University, Ankara, Turkey (online, October 26, 2021)
Hughes Network Systems, Germantown, MD (online, October 19, 2021)
Beijing Institute of Technology (online, September 14, 2021)
Dean's Distinguished Lecture KAUST, Thuwal, Saudi Arabia (online, May 25, 2021)
Distinguished Lecture, University of Virginia (online, April 30, 2021)
Global Lecture Series, Zhejiang University, Hangzhou, China (online, April 28, 2021)
University of Glasgow, Scotland (online, April 15, 2021)
Distinguished Lecture, NYU Abu Dhabi (online, March 8, 2021)
Distinguished Lecture, Missouri University of Science & Technology (online, February 8, 2021)
Information Theory in Singapore Seminar Series (online, November 22, 2020)
IEEE Cognitive Network Security Special Interest Group (online, November 17, 2020)
Stellenbosch University, Stellenbosch, South Africa (online, October 14, 2020)
Carnegie-Mellon University (online, September 30, 2020)
University of Pennsylvania (online, September 29, 2020)
C3.ai Digital Transformation Institute (online, September 10, 2020)
University of California, Berkeley (online, August 28, 2020)
Distinguished Lecture, Rice University, Houston, TX (online, June 25, 2020)
Eminent Scholar Lecture, Hagler Inst. for Advanced Study, Texas A&M (November 18, 2019)
University of Illinois at Chicago (October 25, 2019)
Dean's Lecture, Rochester Institute of Technology, Rochester, NY (October 18, 2019)
Institut d'Études Avancées, Université de Cergy-Pointoise, France (September 24, 2019)
Massachusetts Institute of Technology, Cambridge, MA (August 20, 2019)
EURECOM, Sophia Antipolis, France (July 5, 2019)
Distinguished Lecture, University of Waterloo, Canada (June 14, 2019)
Distinguished Lecture, University of Arizona, Tucson, AZ (April 18, 2019)
Singapore University of Technology and Design (April 12, 2019)
Nanyang Technological Institute, Singapore (April 11, 2019)
Distinguished Lecture, University of Maryland, College Park (April 3, 2019)

Distinguished Lecture, University of Illinois at Urbana-Champaign (March 7, 2019)
California Institute of Technology (January 29, 2019)
Distinguished Lecture, University of Southern California (January 24, 2019)
Institute Lecture, Indian Institute of Technology - Delhi (January 8, 2019)
Indian Institute of Science, Bangalore (January 4, 2019)
ShanghaiTech, Shanghai, China (November 20, 2018)
Distinguished Lecture, Stony Brook University, Stony Brook, NY (August 24, 2018)
The University of Texas, Austin, TX (October 19, 2017)
Texas A&M University, College Station, TX (October 18, 2017)
Rice University, Houston, TX (October 17, 2017)
University of Ulm, Ulm, Germany (October 12, 2017)
Tsinghua University, Beijing, China (September 13, 2017)
Institute of Computing Technology, Chinese Academy of Sciences, Beijing (September 13, 2017)
Global Fellowship Lecture, Peking University, Beijing, China, (September 11, 2017)
Distinguished Lecture, University of Tennessee, Knoxville, TN (May 9, 2017)
Distinguished Lecture, New Jersey Institute of Techn., Newark, NJ (May 1, 2017)
Chien Distinguished Lecture, Univ. of Illinois at Urbana-Champaign (April 26, 2017)
Georgia Institute of Technology, Atlanta, GA (April 19, 2017)
Precourt Institute, Stanford University, Stanford, CA (March 16 & 23, 2017)
Distinguished Lecture, University of California, Davis, CA (February 16, 2017)
Miller Institute, University of California, Berkeley, CA (January 31, 2017)
EECS, University of California, Berkeley, CA (January 30, 2017)
Imperial College, London, UK (November 3, 2016)
Isaac Newton Institute, Cambridge University, UK (October 27, 2016)
University of Bristol, UK (October 14, 2016)
Shanghai Jiao Tong University, Shanghai (March 22, 2016)
China Mobile Research Institute, Beijing (March 18, 2016)
Institute of Computing Technology, Chinese Academy of Sciences, Beijing (March 18, 2016)
National Lab. for Pattern Recognition, Chinese Academy of Sciences, Beijing (March 15, 2016)
Technical University of Darmstadt, Darmstadt, Germany (March 1, 2016)
University of Pennsylvania, Philadelphia, PA (September 22, 2015)
Distinguished Lecture, University of Toronto, Toronto, Canada (September 17, 2015)
EURECOM, Sophia-Antipolis, France (September 4, 2015)
Nunan Lecture, Syracuse University (April 6, 2015)
Viterbi Lecture, University of Southern California, Los Angeles, CA (March 24, 2015)
Rochester Institute of Technology, Rochester, NY (March 20, 2015)
Mercer Lecture, Rensselaer Polytechnic Institute, Troy, NY (March 11, 2015)
Distinguished Lecture, Aalto University, Helsinki, Finland (October 9, 2014)
Distinguished Lecture, Northeastern University, Boston, MA (September 18, 2014)
Peking University, Beijing, China (August 19, 2014)
Tsinghua University, Beijing, China (August 19, 2014)
Imperial College, London (July 14, 2014)

EXTERNAL RESEARCH GRANTS AS (CO-)PRINCIPAL INVESTIGATOR:

Current

- “NeuroComm: Brain-Inspired Wireless Communications – From Theoretical Foundations to Implementation for 6G and Beyond,” National Science Foundation Grant ECCS-2335876 (with researchers from King’s College London), October 1, 2023 - September 30, 2026
- “Nonlinear and Inseparable Radar And Data (NIRAD) Transmission Framework for Pareto Efficient Spectrum Access in Future Wireless Networks,” National Science Foundation Grant CNS-2128448 (with researchers from the University of Houston and Purdue University), October 1, 2021 - September 30, 2024
- “Innovations in Mean-Field Game Theory for Scalable Computation and Diverse Applications,” Air Force Office of Scientific Research MURI Grant FA9550-18-1-0502 (with researchers from UCLA, the University of Houston and the University of Maryland), September 28, 2018 - September 27, 2024

Previous (Past Ten Years)

- “Statistical Learning Theory and Graph Neural Networks for Identifying Attack Sources,” C3.ai Digital Transformation Institute (with researchers from the University of Illinois at Urbana-Champaign and the University of Michigan), May 1, 2022 - June 30, 2024
- “Efficient Ultra Endpoint IoT-enabled Coordinated Architecture (EUREICA),” Department of Energy Grant DE-OE0000920 (with Prateek Mittal and researchers from MIT, National Renewable Energy Lab, Pacific Northwest National Lab and Washington State University), August 1, 2020 - January 31, 2024
- “Blockchain Graphs as Testbeds of Power Grid Resilience and Functionality Metrics,” National Science Foundation Grant ECCS-2039716 (with researchers from the University of Texas at Dallas), November 15, 2020 - October 31, 2023
- “A Learning-based Influence Model Approach to Cascading Failure Prediction,” C3.ai Digital Transformation Institute (with researchers from MIT), July 1, 2021 - June 30, 2023
- “A Unified View of Estimation and Information Relationships for Networks and Beyond,” National Science Foundation Grant CCF-1908308 (with researchers from the Technion), July 1, 2019 - June 30, 2023
- “Machine Learning for Power Electronics-enabled Power Systems: A Unified ML Platform for Power Electronics,” C3.ai Digital Transformation Institute, (with Minjie Chen, Prateek Mittal and researchers from KTH Stockholm), July 1, 2021 - June 30, 2023
- “Modeling and Analytics for COVID-19 Outbreak Response in India,” National Science Foundation RAPID Grant CCF-2142997 (with Simon Levin and researchers from the University of Virginia, and the Center for Disease Dynamics, Economics & Policy). October 1, 2021 - June 30, 2022
- “The Effects of Evolutionary Adaptations on the Spreading of COVID-19,” National Science Foundation RAPID Grant IIS-2026982 (with researchers from Carnegie-Mellon University), May 1, 2020 - April 30, 2022
- “Computationally Efficient Signal Processing via Adversarial Networks (CESPAN),” Defense Advanced Research Projects Agency (with Northrop Grumman Corporation and Intelligent Automation, Inc.), April 1, 2020 - October 31, 2021
- “Modeling and Control of COVID-19 Propagation for Assessing and Optimizing Intervention Policies,” C3.ai Digital Transformation Institute Award (with Simon Levin and researchers from Carnegie-Mellon University and the University of Pennsylvania), July 1, 2020 - October 31, 2021
- “Data-driven Modeling of Information Propagation in Multilayer and Multiplex Networks,” Army Research Office Grant W911NF-17-1-0587 (with researchers from Carnegie-Mellon University), September 28, 2017 - September 28, 2021
- “Local Topological Properties of Power Flow Networks, and Their Role in Power System Functionality,” National Science Foundation Grant ECCS-1824710 (with researchers from the University of Texas at Dallas), August 15, 2018 - August 31, 2021
- “Assessing the Effectiveness of Countermeasures Against the Spread of COVID-19 Through

- a New Mathematical Model,” Army Research Office Grant W911NF-20-1-0204 (with researchers from Carnegie-Mellon University), June 8, 2020 - June 7, 2021
- “Analysis of Local Power Grid Properties: From Network Motifs to Tensors,” National Science Foundation Grant DMS-1736417 (with researchers from the University of Texas at Dallas), September 1, 2017 - August 31, 2020
- “Integrated Cognitive Mobile and Social Networking,” Army Research Office Grant W911NF-16-1-0448 (with researchers from Arizona State University), August 8, 2016 - May 7, 2020
- “Secure Li-Fi Wireless Communication Systems: From Fundamental Limits to Practical Schemes,” KAUST Grant No. OSR-2016-CRG5-2958-02 (with researchers from KAUST), April 1, 2017 - March 31, 2020
- “Secure Inference in the Internet of Things,” National Science Foundation Grant CNS-1702808 (with researchers from Aalto University and Lehigh University), April 1, 2017 - March 31, 2019
- “Physical-Layer Security for the Internet of Things,” National Science Foundation Grant ECCS-1647198, September 1, 2016 - August 31, 2018
- “Foundations of Prosumer-Centric Grid Energy Management,” National Science Foundation Grant ECCS-1549881 (with researchers from Rutgers University and Virginia Tech), September 15, 2015 - August 31, 2018
- “Machine-Intelligence for Advanced Notification of Threats and Energy-Grid Survivable Situational Awareness (MANTESSA),” Defense Advanced Research Projects Agency Contract FA8750-16-C-0054 (with Prateek Mittal and researchers from Applied Communication Sciences, Carnegie Mellon University and Columbia University), August 1, 2016 - July 17, 2018
- “Towards Universal Signal Recovery Algorithms,” National Science Foundation Grant CCF-1420575 (with Shirin Jalali), July 1, 2014 - June 30, 2018
- “Sequential Inference and Learning for Agile Spectrum Use,” National Science Foundation Grant CNS-1456793 (with researchers from Aalto University and Worcester Polytechnic Institute), March 15, 2015 - February 28, 2018
- “Fundamental Limits of Spectrum Sensing,” National Science Foundation Grant ECCS-1343210 (with researchers from RPI), October 1, 2013 - September 30, 2017
- “Network Protection Under Uncertainty,” National Science Foundation Grant CMMI-1435778 (with researchers from Rutgers University), September 1, 2014 - August 31, 2017
- “Measuring, Understanding, and Responding to Covert Social Networks,” Army Research Office MURI Grant W911NF-11-1-0036 (with Mung Chiang, Jacob Shapiro (Politics), and researchers from Harvard University, MIT, Northeastern University, and the University of Florida), November 23, 2010 - November 22, 2016
- “Mathematical Challenges in Distributed Quickest Detection,” National Science Foundation Grant DMS-1118605 (with researchers from the University of Michigan and Worcester Polytechnic Institute), August 15, 2011 - July 31, 2015.
- “Robust Socio-Technological Networks: An Inter-Disciplinary Approach to Theoretical Foundation and Experimentation,” National Science Foundation Grant CNS-09-05086 (with Mung Chiang, Matthew Salganik (Sociology) and Jacob Shapiro (Politics)), October 1, 2009 - September 30, 2014
- “Privacy and Utility of Databases: An Information-Theoretic Approach,” National Science Foundation Grant CCF-1016671 (with Lalitha Sankar), Sept. 1, 2010 - Aug. 31, 2014
- “Information Dynamics as Foundation for Network Management,” Air Force Office of Scientific Research MURI Grant FA9550-09-1-0643 (with Mung Chiang, Jennifer Rexford (Computer Science), and researchers from Arizona State University, Caltech, Duke University, EPFL, Stanford University, the University of Pennsylvania and the University of Wisconsin), September 1, 2009 - August 31, 2014

PUBLICATIONS

Books:

- Peer-to-Peer Energy Sharing: A Comprehensive Review*. With Wayes Tushar, Sohrab Nizami, M. Imran Azim, Chau Yuen, David B. Smith and Tapan Saha. (Now Publishers, Hanover, MA, 2023) [Also published in *Foundations and Trends in Electric Energy Systems*, Vol 6, No. 1, pp. 1 - 82, 2023.]
- Information Theoretic Methods for Future Communication Systems*. Edited, with Onur Günlü, Rafael F. Schaefer and Holger Boche. (MDPI, Basel, Switzerland, 2023) [Also published as a special issue of *Entropy*, Vol. 23, No. 3, 2023.]
- Machine Learning and Wireless Communications*. Edited, with Yonina Eldar, Andrea Goldsmith and Deniz Gündüz. (Cambridge University Press, Cambridge, UK, 2022)
- Wireless for Machine Learning: A Survey*. With Henrik Hellström, José Mairton B. da Silva Jr., Mohammad Mohammadi Amiri, Mingzhe Chen, Viktoria Fodor and Carlo Fischione. (Now Publishers, Hanover, MA, 2022) [Also published in *Foundations and Trends in Signal Processing*, Vol 15, No. 4, pp. 290 - 399, 2022.]
- Edge Caching for Mobile Networks*. Edited, with Wei Chen. (IET Press, London, UK, 2021)
- Advanced Data Analytics for Power Systems*. Edited, with Ali Tajer and Samir Perlaza. (Cambridge University Press, Cambridge, UK, 2021)
- Multiple Access Techniques for 5G Wireless Networks and Beyond*. Edited, with Mojtaba Vaezi and Zhiguo Ding. (Springer International Publishing, Cham, Switzerland, 2019)
- Information Theoretic Security and Privacy of Information Systems*. Edited, with Rafael Schaefer, Holger Boche, and Ashish Khisti. (Cambridge University Press, Cambridge, UK, 2017)
- Trusted Communications with Physical Layer Security for 5G and Beyond*. Edited, with Trung Duong and Sean Zhou. (IET Press, London, 2017)
- Smarter Energy: From Smart Metering to the Smart Grid*. Edited, with Hongjian Sun, Nikos Hatziargyriou, Laurence Carpanini and Miguel Angel Sánchez Fornié. (IET Press, London, 2016)
- Mechanisms and Games for Dynamic Spectrum Allocation*. Edited, with Tansu Alpcan, Holger Boche and Michael Honig. (Cambridge University Press, Cambridge, UK, 2014)
- Principles of Cognitive Radio*. With Ezio Biglieri, Andrea Goldsmith, Larry Greenstein and Narayan Mandayam. (Cambridge University Press, Cambridge, UK, 2013)
- Cooperative Wireless Cellular Systems: An Information-Theoretic View*. With Osvaldo Simeone, Nathan Levy, Amichai Sanderovich, Oren Somekh, Benjamin M. Zaidel and Shlomo Shamai. (Now Publishers, Hanover, MA, 2012) [Also published in *Foundations and Trends in Communications and Information Theory*, Vol. 8, Nos. 1-2, pp. 1 - 177, 2012.]
- Smart Grid Communications and Networking*. Edited, with Ekram Hossain and Zhu Han. (Cambridge University Press, Cambridge, UK, 2012) [Chinese translation published by PHEI, Beijing, 2013.]
- Classical, Semi-Classical and Quantum Noise*. Edited, with Leon Cohen and Marlan Scully. (Springer-Verlag, New York, 2012)
- Information Theoretic Security*. With Yingbin Liang and Shlomo Shamai. (Now Publishers, Hanover, MA, 2009) [Also published in *Foundations and Trends in Communications and Information Theory*, Vol. 5, Nos. 4 - 5, pp. 355 - 580, 2009.]
- Quickest Detection*. With Olympia Hadjiladis. (Cambridge University Press, Cambridge, UK, 2009)
- MIMO Wireless Communications*. With Ezio Biglieri, A. Robert Calderbank, Anthony G. Constantinides, Andrea Goldsmith and A. Paulraj. (Cambridge University Press, Cambridge, UK, 2007). [Japanese translation published by Tokyo Denki University Press, Tokyo, in 2009.]
- Wireless Networks: Multiuser Detection in Cross-Layer Design*. With Cristina Comaniciu and Narayan Mandayam. (Springer, New York, 2005)
- Wireless Communication Systems: Advanced Techniques for Signal Reception*. With Xiaodong Wang. (Prentice-Hall, Upper Saddle River, NJ, 2004). [Chinese translation published by Electronic Industry Publishers, Beijing, in 2005.]

- Communications, Information and Network Security*. Edited, with Vijay Bhargava, Vahid Tarokh and Seokho Yoon. (Kluwer, Boston, 2002)
- Signal Processing for Wireless Communication Systems*. Edited, with Lang Tong. (Kluwer, Boston, 2002)
- Wireless Communications: Signal Processing Perspectives*. Edited, with Gregory W. Wornell. (Prentice-Hall, Upper Saddle River, NJ, 1998)
- An Introduction to Signal Detection and Estimation*. (Springer-Verlag, New York, 1988; Second Edition, 1994) [Chinese translation published by China Machine Press, Beijing, in 2015.]
- Advances in Statistical Signal Processing - Vol. 2: Signal Detection*. Edited, with John B. Thomas. (JAI Press, Greenwich, CT, 1993)
- Advances in Statistical Signal Processing - Vol. 1: Estimation*. Edited. (JAI Press, Greenwich, CT, 1987)
- Communications and Networks: A Survey of Recent Advances*. Edited, with Ian F. Blake. (Springer-Verlag, New York, 1986)

Contributions to Books:

- “Graph Signal Processing in Wireless Sensor Networks,” (with Tirza Routtenberg). Chapter in *Wireless Sensor Networks in Smart Environments: Enabling Digitalization*, Domenico Ciuonzo and Pierluigi Salvo Rossi, Eds. (Wiley-IEEE Press, 2024), to appear.
- “Power Allocation Strategies for Localization in Distributed Multiple-radar Architectures,” (with Hana Godrich and Athena Petropulu). Chapter in *Information Theoretic Radar Signal Processing*, Yujie Gu and Yimin D. Zhang, Eds. (Wiley-IEEE Press, 2024), to appear.
- “Economics of Fresh Data Trading,” (with Meng Zhang, Ahmed Arafa and Jianwei Huang). Chapter 17 in *Age of Information: Foundations and Applications*, Nikolaos Pappas, Mohamed A. Abd-Elmagid, Bo Zhou, Walid Saad and Harpeet Dillon, Eds. (Cambridge University Press: Cambridge, UK, 2023), pp. 429 - 455.
- “AI Techniques for Forecasting Epidemic Dynamics: Theory and Practice,” (with Aniruddha Adiga, Bryan Lewis, Simon Levin, Madhav V. Marathe, S. S. Ravi, Daniel J. Rosenkrantz, Richard E. Stearns, Srinivasan Venkatramanan, Anil Vullikanti and Lijing Wang). Chapter 9 in *Artificial Intelligence in COVID-19*, Niklas Lidströmer and Yonina Eldar, Eds. (Springer Nature, Cham, Switzerland, 2022), pp. 193 - 228.
- “Quantized Federated Learning,” (with Nir Shlezinger, Mingzhe Chen, Yonina C. Eldar and Shuguang Cui). Chapter 14 in *Machine Learning and Wireless Communications*, Yonina Eldar, Andrea Goldsmith, Deniz Gündüz and H. Vincent Poor, Eds. (Cambridge University Press: Cambridge, UK, 2022), pp. 409 - 433.
- “Collaborative Learning over Wireless Networks: An Introductory Overview,” (with Emre Ozfatura and Deniz Gündüz). Chapter 12 in *Machine Learning and Wireless Communications*, Yonina Eldar, Andrea Goldsmith, Deniz Gündüz and H. Vincent Poor, Eds. (Cambridge University Press: Cambridge, UK, 2022), pp. 353 - 384.
- “Machine Learning and Wireless Communications: An Introduction,” (with Yonina Eldar, Andrea Goldsmith and Deniz Gündüz). Chapter 1 in *Machine Learning and Wireless Communications*, Yonina Eldar, Andrea Goldsmith, Deniz Gündüz and H. Vincent Poor, Eds. (Cambridge University Press: Cambridge, UK, 2022), pp. 1 - 20.
- “A Broadcast Approach to Fading Channels under Secrecy Constraints,” (with Lifeng Lai, Yingbin Liang and Shlomo Shamai). Chapter 18 in *Information-Theoretic Perspectives on 5G Systems and Beyond*, Ivana Maric, Osvaldo Simeone and Shlomo Shamai, Eds. (Cambridge University Press, Cambridge, UK, 2022), pp. 653 - 682.
- “Information-Theoretic Perspectives on Non-Orthogonal Multiple Access (NOMA),” (with Peng Xu and Zhiguo Ding). Chapter 11 in *Information-Theoretic Perspectives on 5G Systems and Beyond*, Ivana Maric, Osvaldo Simeone and Shlomo Shamai, Eds. (Cambridge University Press, Cambridge, UK, 2022), pp. 394 - 425.
- “Caching with Time-Varying Popularity Profiles,” (with Bettagere N. Bharath, Kyatsandra G. Nagananda and Deniz Gündüz). Chapter 18 in *Edge Caching for Mobile Networks*. Wei Chen and H. Vincent Poor, Eds. (IET Press, London, 2021), pp. 519 - 536.
- “Mobile Edge Caching: An Optimal Auction Approach,” (with Xuanyu Cao and Junshan Zhang). Chapter 15 in *Edge Caching for Mobile Networks*. Wei Chen and H. Vincent Poor, Eds. (IET Press, London, 2021), pp. 439 - 462.
- “Introduction,” (with Wei Chen). Chapter 1 in *Edge Caching for Mobile Networks*. Wei Chen and H. Vincent Poor, Eds. (IET Press, London, 2021), pp. 1 - 16.
- “Differentially Private Federated Learning: Algorithm, Analysis and Optimization,” (with Kang Wei, Jun Li, Ming Ding and Chuan Ma). Chapter 3 in *Federated Learning Systems: Towards Next-generation AI*, Muhammad Habib ur Rehman and Mohamed Medhat Gaber, Eds. (Springer Nature, Cham, Switzerland, 2021), pp. 51 - 78.
- “Federated Learning in 6G Mobile Wireless Networks,” (with Zhaohui Yang, Mingzhe Chen, Walid Saad and Mohammad Shikh-Bahaei and Shuguang Cui). Chapter 16 in *6G Mobile Wireless Networks*, Y. Wu, S. Singh, T. Taleb, A. Roy, A., H. S. Dhillon, M. R. Kanagarathinam and A. De, Eds. (Springer Nature, Cham, Switzerland, 2021), pp. 359 - 378.

- “Enhancing the Physical Layer Security of NOMA Systems,” (with Ming Zeng, Phong Nguyen and Octavia Dobre). Chapter 19 in *Flexible and Cognitive Radio Access Technologies for 5G and Beyond*, Ertuğrul Başar and Huseyin Arslan, Eds. (IET Press, London, 2021), pp. 589 - 612.
- “Age Minimization in Energy Harvesting Communications,” (with Ahmed Arafa, Songtao Feng, Jing Yang and Sennur Ulukus). Chapter 8 in *Green Communications for Energy-Efficient Wireless Systems and Networks*, Himel Asanga Suraweera, Jing Yang, Alessio Zappone and John S. Thompson, Eds. (IET Press, London, 2021), pp. 203 - 230.
- “Compression Codes for Compressed Sensing,” (with Shirin Jalali). Chapter 3 in *Information-Theoretic Methods in Data Science*, Miguel Rodrigues and Yonina Eldar, Eds. (Cambridge University Press, Cambridge, UK, 2021), pp. 72 - 103.
- “Smart Meter Data Privacy,” (with Giulio Giacconi and Deniz Gündüz). Chapter 10 in *Advanced Data Analytics for Power Systems*, Ali Tajer, Samir Perlaza and H. Vincent Poor, Eds. (Cambridge University Press, Cambridge, UK, 2021), pp. 230 - 260.
- “Graph-Theoretic Analysis of Power Grid Robustness,” (with Dorcas Ofori-Boateng, Asim Kumer Dey and Yulia Gel). Chapter 8 in *Advanced Data Analytics for Power Systems*, Ali Tajer, Samir Perlaza and H. Vincent Poor, Eds. (Cambridge University Press, Cambridge, UK, 2021), pp. 175 -194.
- “Physical Layer Security: Authentication, Integrity and Confidentiality,” (with Mahdi Shakiba Herfeh and Arsenia Chorti). Chapter 6 in *Physical Layer Security*, Khoa N. Le, Ed. (Springer Nature, Cham, Switzerland, 2021), pp. 129 - 150.
- Foreword to *Stochastic Disorder Problems*, Albert N. Shiryaev (Springer Nature, Cham, Switzerland, 2019), pp. v - vi.
- “NOMA: An Information Theoretic Perspective,” (with Mojtaba Vaezi). Chapter 5 in *Multiple Access Techniques for 5G Wireless Networks and Beyond*, Mojtaba Vaezi, Zhiguo Ding and H. Vincent Poor, Eds. (Springer International Publishing, Cham, Switzerland, 2019), pp. 167 - 193.
- “Dynamic Social Networks: Search and Data Routing,” (with Hazer Inaltekin). Chapter 23 in *Cooperative and Graph Signal Processing: Principles and Applications*, Petar M. Djurić and Cédric Richard, Eds. (Elsevier, Amsterdam, 2018), pp. 623 - 650.
- “Data-Driven Approaches for Detecting and Identifying Anomalous Data Streams,” (with Shaofeng Zou, Yingbin Liang and Xinghua Shi). Chapter 4 in *Signal Processing and Machine Learning for Biological Big Data*, Ervin Sejdić and Tiago H. Falk, Eds. (CRC Press, Boca Raton, FL, 2018), pp. 57 - 72.
- “Privacy in Networks of Interacting Agents.” Chapter 19 in *Emerging Applications of Control and System Theory: A Festschrift in Honor of Mathukumalli Vidyasagar*, Roberto Tempo, Stephen Yurkovich and Pradeep Misra, Eds. (Springer, New York, 2018), pp. 259 - 268.
- “Privacy in the Smart Grid: Information, Control and Games.” Chapter 18 in *Information Theoretic Security and Privacy of Information Systems*. Rafael Schaefer, Holger Boche, Ashish Khisti and H. Vincent Poor, Eds. (Cambridge University Press, Cambridge, UK, 2017), pp. 498 - 518.
- “Super-Activation as a Unique Feature of Secure Communication Over Arbitrarily Varying Channels,” (with Rafael F. Schaefer and Holger Boche). Chapter 11 in *Information Theoretic Security and Privacy of Information Systems*. Rafael Schaefer, Holger Boche, Ashish Khisti and H. Vincent Poor, Eds. (Cambridge University Press, Cambridge, UK, 2017), pp. 314 - 330.
- Foreword to *Cloud Radio Access Networks: Principles, Technologies, and Applications*, Tony Q. S. Quek, Mugen Peng, Osvaldo Simeone and Wei Yu, Eds. (Cambridge University Press, Cambridge, UK, 2017), p. xiii.
- “Nonorthogonal Multiple Access (NOMA) for 5G Systems,” (with Zhiguo Ding). Chapter 6 in *Key Technologies for 5G Wireless Systems*, Vincent Wong, et al., Eds. (Cambridge University Press, Cambridge, UK, 2017), pp. 109 - 132.
- “Relaying for Massive MIMO,” (with Gayan Amarasureiya). Chapter 2 in *Advanced Relay Technologies in Next Generation Wireless Communications*, Ioannis Krikidis and Gan Zheng, Eds., (IET Press, London, 2016), pp. 39 - 70.
- “Arbitrarily Varying Channels - A Model for Robust Communication in the Presence of Unknown Interference,” (with Rafael F. Schaefer and Holger Boche). Chapter 12 in *Communications in*

- Interference Limited Networks*, Wolfgang Utschick, Ed., (Springer-Verlag, Cham, Switzerland, 2016), pp. 259 - 283.
- “Broadcast Channels with Confidential Messages: Channel Uncertainty, Robustness, and Continuity,” (with Rafael F. Schaefer, Andrea Grigorescu and Holger Boche). Chapter 5 in *Physical and Data-Link Security Techniques for Future Communication Systems*, Marco Baldi and Stefano Tomasin, Eds., (Springer-Verlag, Cham, Switzerland, 2016), pp. 69 - 91.
- “Physical Layer Security: A Paradigm Shift in Data Confidentiality,” (with Arsenia Chorti, Camilla Hollanti and Jean-Claude Belfiore). Chapter 1 in *Physical and Data-Link Security Techniques for Future Communication Systems*, Marco Baldi and Stefano Tomasin, Eds., (Springer-Verlag, Cham, Switzerland, 2016), pp. 1 - 15.
- Foreword to *Trends in Digital Signal Processing: A Festschrift in Honour of A. G. Constantinides*. Yong Ching Lim, Hon Keung Kwan and Wan-Chi Siu, Eds. (CRC Press, Boca Raton, FL, 2016), pp. xxi - xxii.
- “Big Data Processing for Smart Grid Security,” (with Lanchao Liu, Zhu Han and Shuguang Cui). Chapter 8 in *Big Data over Networks*, Shuguang (Robert) Cui, Alfred O. Hero III, Zhi-Quan (Tom) Luo, and José M. F. Moura, Eds. (Cambridge University Press, Cambridge, UK, 2015), pp. 217 - 244.
- “Cooperation in Cognitive Radio Networks: From Monitoring to Access,” (with Walid Saad). Chapter 8 in *Mechanisms and Games for Dynamic Spectrum Allocation*, Tansu Alpcan, et al., Eds. (Cambridge University Press, Cambridge, UK, 2014), pp. 233 - 265.
- “Key Generation from Wireless Channels,” (with Lifeng Lai, Yingbin Liang and Wenliang Du). Chapter 4 in *Physical Layer Security in Wireless Communications*, Xiangyun Zhou and Lingyang Song, Eds. (Auerbach Publications, CRC Press, Boca Raton, FL, 2014), pp. 47 - 68.
- “Spectrum Exploration and Exploitation,” (with Jarmo Lundén and Visa Koivunen). Chapter 5 in *Principles of Cognitive Radio*, Ezio Biglieri, et al. (Cambridge University Press, Cambridge, UK, 2013), pp. 184 - 258.
- “Distributed State Estimation: A Learning-based Framework,” (with Ali Tajer and Soumya Kar). Chapter 8 in *Smart Grid Communications and Networking*. Ekram Hossain, Zhu Han and H. Vincent Poor, Eds. (Cambridge University Press, Cambridge, UK, 2012), pp. 191 - 201.
- “Bad-data Detection in Smart Grids: A Distributed Approach,” (with Le Xie, Dae-Hyun Choi and Soumya Kar). Chapter 7 in *Smart Grid Communications and Networking*. Ekram Hossain, Zhu Han and H. Vincent Poor, Eds. (Cambridge University Press, Cambridge, UK, 2012), pp. 175 - 190.
- Foreword to *Non-Gaussian Statistical Communication Theory*, by David Middleton (John Wiley & Sons, Hoboken, NJ, 2012), p. xv.
- Foreword to *Fundamentals of Wireless Communications Engineering Technologies*, by Daniel Wong (John Wiley & Sons, Hoboken, NJ, 2012), p. xix.
- “Multiple-Access Interference.” Chapter 12 in *Classical, Semi-Classical and Quantum Noise*. Leon Cohen, H. Vincent Poor, and Marlan Scully, Eds. (Springer-Verlag, New York, 2012), pp. 145 - 156.
- Foreword to *Intermittently Connected Mobile Ad Hoc Networks - From Routing to Content Distribution*, by Abbas Jamalipour and Yaozhou Ma. (Springer, New York, 2011), p. vii.
- “Competition and Collaboration in Wireless Sensor Networks.” Chapter 1 in *Sensor Networks - Where Theory Meets Practice*, Gianluigi Ferrari, Ed. (Springer-Verlag, New York, 2010), pp. 3 - 16.
- “Hybrid-ARQ Schemes for Reliable and Secret Wireless Communications,” (with Xiaojun Tang, Ruoheng Liu and Predrag Spasojevic). Chapter 5 in *Securing Wireless Communications at the Physical Layer*, Ruoheng Liu and Wade Trappe, Eds. (Springer-Verlag, New York, 2010), pp. 89 - 112.
- “Secret Communication Under Channel Uncertainty,” (with Yingbin Liang and Shlomo Shamai). Chapter 6 in *Securing Wireless Communications at the Physical Layer*, Ruoheng Liu and Wade Trappe, Eds. (Springer-Verlag, New York, 2010), pp. 113 - 141.
- “Source Coding under Secrecy Constraints,” (with Deniz Gündüz and Elza Erkip). Chapter 8 in *Securing Wireless Communications at the Physical Layer*, Ruoheng Liu and Wade Trappe, Eds. (Springer-Verlag, New York, 2010), pp. 173 - 200.

- “Message Authentication: Information Theoretic Bounds,” (with Lifeng Lai and Hesham El Gamal). Chapter 14 in *Securing Wireless Communications at the Physical Layer*, Ruoheng Liu and Wade Trappe, Eds. (Springer-Verlag, New York, 2010), pp. 335 - 377.
- “Cross-Layer Cooperative Beamforming for Wireless Networks,” (with Lun Dong and Athina Petropulu). Chapter 7 in *Cooperative Communications for Improved Wireless Network Transmission: Frameworks for Virtual Antenna Array Applications*, Murat Uysal, Ed. (IGI Global, Hershey, PA, 2009), pp. 207 - 237.
- “Fundamentals of Multi-User MIMO Communications,” (with Luca Sanguinetti). Chapter 6 in *New Directions in Wireless Communications Research*, Vahid Tarokh, Ed. (Springer-Verlag, New York, 2009), pp. 139 - 173.
- “Blind Multiuser Detection in Fading Channels,” (with Daryl Reynolds and Xiaodong Wang). Chapter 3 in *Advances in Multiuser Detection*, Michael Honig, Ed. (Wiley, New York, 2009), pp. 127 -187.
- “Impact of Cooperative Transmission on Network Routing,” (with Zhu Han). Chapter 13 in *Cooperative Wireless Communications*, Yan Zhang, Hsiao-Hwa Chen and Mohsen Guizani, Eds. (Taylor & Francis, London, 2009), pp. 283 - 316.
- “Random Array Theory and Collaborative Beamforming,” (with Hideki Ochiai, Patrick Mitran and Vahid Tarokh). Chapter 5 in *Handbook on Advancements in Smart Antenna Technologies for Wireless Networks*, Chen Sun, Jun Cheng and Takashi Ohira, Eds. (IGI Global, Hershey, PA, 2009), pp. 94 - 106.
- “UWB Localization Algorithms,” (with Sinan Gezici). Chapter 10 in *Short Range Wireless Communication: Emerging Technologies and Applications*, Rolf Kraemer and Marcos Katz, Eds. (Wiley, New York, 2008), pp. 73 - 84.
- “Ultra Wideband Communication,” (with A. Anttonen, et al.). Section 7.4.2 in *Technologies for the Wireless Future: Wireless World Research Forum, Volume 3*, Klaus David, Ed. (Wiley, New York, 2008), pp. 323 - 341.
- “Distributed Learning in Wireless Sensor Networks,” (with Joel B. Predd and Sanjeev R. Kulkarni). Chapter 8 in *Wireless Sensor Networks: Signal Processing and Communications Perspectives*, Ananthram Swami, Yao-Win Hong, Qing Zhao and Lang Tong, Eds. (Wiley, New York, 2007), pp. 185 - 214.
- “Multi-user Receiver Design,” (with Huaiyu Dai, Sudharman Jayaweera, Daryl Reynolds and Xiaodong Wang). Chapter 6 in *MIMO Wireless Communications*, E. Bilgieri, et al. (Cambridge University Press, Cambridge, UK, 2007), pp. 230 - 292.
- “Multiple-Access Interference Mitigation in UWB Systems,” (with Sinan Gezici and Hisashi Kobayashi). Chapter 10 in *Ultrawideband Communications*, H. Arslan, Z. N. Chen and M.-G. Di Benedetto, Eds. (Wiley, New York, 2006), pp. 227 - 254.
- “Ultrawideband Geolocation,” (with Sinan Gezici, Zafer Sahinoglu and Hisashi Kobayashi). Chapter 3 in *Ultra Wideband Wireless Communications*, H. Arslan, Z. N. Chen and M.-G. Di Benedetto, Eds. (Wiley, New York, 2006), pp. 43 - 76.
- “Multiuser MIMO Systems,” (with Daryl Reynolds and Xiaodong Wang). Chapter 20 in *Space-Time Wireless Systems: From Array Processing to MIMO Communications*, H. Bölcskei, D. Gesbert, C. Papadias and A.-J. van der Veen, Eds., (Cambridge University Press, Cambridge, UK, 2006), pp. 406 - 425.
- “Advances in Quantum Detection,” (with Julio I. Concha), Chapter 7 in *Communications, Information and Network Security*. V. Bhargava, H. V. Poor, V. Tarokh and S. Yoon, Eds. (Kluwer, Boston, 2002), pp. 89 - 121.
- “Sequence Detection: Backward and Forward in Time,” Chapter 6 in *Codes, Graphs and Systems*, Richard E. Blahut and Ralf Koetter, Eds. (Kluwer, Boston, 2002), pp. 93 - 112.
- “Detection of Stochastic Processes,” (with Thomas Kailath), in *Information Theory: 50 Years of Discovery*, Sergio Verdú and Steven McCloughlin, Eds. (IEEE Press, New York, 2000), pp. 186 - 215.
- “Adaptive Interference Suppression for Wireless Multiple-access Communication Systems,” Chapter 27 in *Circuits and Systems for Wireless Communications*, M. Helfenstein and G. Moschytz, Eds. (Kluwer, Dordrecht, 2000), pp. 341 - 349.

- “Adaptive Interference Suppression,” (with Michael L. Honig), Chapter 2 in *Wireless Communications: Signal Processing Perspectives*, H. V. Poor and G. W. Wornell, Eds. (Prentice-Hall, Upper Saddle River, NJ, 1998), pp. 64 - 128.
- “Information, Communication, Noise and Interference,” (with John B. Thomas), in *Electronics Engineers’ Handbook - Fourth Edition*, D. Christiansen, Ed. (McGraw-Hill, New York, 1997), pp. 4.1 - 4.49.
- “Finite Field Wavelet Transforms,” in *Lecture Notes in Computer Science No. 1133: Information Theory and Applications 2*, Jean-Yves Chouinard, Paul Fortier, and T. Aaron Gulliver, Eds. (Springer-Verlag, New York, 1996), pp. 225 - 238.
- “Modulation and Detection,” in *The Engineering Handbook*, R. C. Dorf, Ed. (CRC Press, Littleton, MA, 1996), pp. 1359 - 1377.
- Foreword to the Classic Re-issue of *Introduction to Statistical Communication Theory*, by David Middleton (IEEE Press, New York, 1996).
- Foreword to *Introduction to Nonparametric Detection with Applications*, by Jerry D. Gibson and James L. Melsa (IEEE Press, New York, 1996).
- “Lattice Filters in Discrete and Continuous Time,” (with Steven R. Weller and Graham C. Goodwin), in *Control and Dynamic Systems: Advances in Theory and Applications - Vol. 65: Stochastic Techniques in Digital Signal Processing*, Part 2 of 2, C. T. Leondes, Ed. (Harcourt Brace & Co., Orlando, FL, 1994).
- “Signal Detection,” in *The Electrical Engineering Handbook*, R.C. Dorf, Ed. (CRC Press, Littleton, MA, 1993), pp. 67-1 - 67-10. [Also in *The Electrical Engineering Handbook - Second Edition*, 1997; pp. 1633 - 1642.]
- “Signal Detection in Dependent Non-Gaussian Noise,” (with John B. Thomas), in *Advances in Statistical Signal Processing - Vol. 2*, H. V. Poor and J. B. Thomas, Eds.,(JAI Press, Greenwich, CT, 1993), pp. 217 - 258.
- “Nonstandard Methods in Prediction,” in *Adaptive Signal Processing*, L.D. Davisson and G. Longo, Eds. (Springer-Verlag, Heidelberg, 1991), pp. 172 - 203.
- “Analysis of a Class of Adaptive Nonlinear Predictors,” (with Rajiv Vijayan), in *Advances in Communications and Signal Processing*, W. A. Porter and S. C. Zak, Eds., (Springer-Verlag, New York 1989), pp. 231 - 241.
- “On Parameter Estimation in DS/SSMA Formats,” in *Advances in Communications and Signal Processing*, W. A. Porter and S. C. Zak, Eds., (Springer-Verlag, New York 1989), pp. 59 - 70.
- “Robust Filtering,” in *Advances in Statistical Signal Processing - Vol. 1: Estimation*, H. V. Poor, Ed. (JAI Press, Greenwich, CT, 1987), pp. 329 - 360.
- “Robustness in Signal Detection,” in *Communications and Networks: A Survey of Recent Advances*, I. F. Blake and H. V. Poor, Eds. (Springer-Verlag, New York, 1986), pp. 131 - 156.
- “Minimax Robust Filtering and Finite-Length Robust Predictors,” (with Jürgen Franke), in *Robust and Nonlinear Time Series Analysis*, J. Franke, W. Härdle, and R. D. Martin, Eds. (Springer-Verlag, Heidelberg, 1984), pp. 87 - 126.
- “On Linear-Quadratic-Gaussian Control of Systems with Uncertain Statistics,” (with Douglas P. Looze, Kenneth S. Vastola, and John C. Darragh), in *System Modeling and Optimization*, R. F. Drenick and F. Kozin, Eds. (Springer-Verlag, Berlin, 1982), pp. 417 - 423.

Journal Articles (Asterisks Denote Invited Papers):

- “Capacity of Finite State Channels with Feedback: Algorithmic and Optimization Theoretic Properties,” (with Andrea Grigorescu, Holger Boche and Rafael F. Schaefer). *IEEE Transactions on Information Theory*, to appear.
- “Efficient Reinforcement Learning with Impaired Observability: Learning to Act with Delayed and Missing State Observations,” (with Minshuo Chen, Jie Meng, Yu Bai, Yinyu Ye and Mengdi Wang). *IEEE Transactions on Information Theory*, to appear.
- *“Next Generation Multiple Access for IMT Towards 2030 and Beyond,” (with Zhiguo Ding, Robert Schober and Pingzhi Fan). *Science China Information Sciences*, to appear.
- “Overcoming Beam Squint in mmWave MIMO Channel Estimation: A Bayesian Multi-Band Sparsity Approach,” (with Le Xu, Lei Cheng, Ngai Wong and Yik-Chung Wu). *IEEE Transactions on Signal Processing*, to appear.
- “A Distributionally Robust Model Predictive Control for Static and Dynamic Uncertainties in Smart Grids,” (with Qi Li, Ye Shi, Yuning Jiang, Yuanming Shi and Haoyu Wang). *IEEE Transactions on Smart Grid*, to appear.
- “Charge Manipulation Attacks Against Smart Electric Vehicle Charging Stations and Deep Learning-based Detection Mechanisms,” (with Hamidreza Jahangir and Subhash Lakshminarayana). *IEEE Transactions on Smart Grid*, to appear.
- “A Deep Learning-Based Cyber Intrusion Detection and Mitigation System for Smart Grids,” (with Abdulaziz Aljohani and Mohammed Al-Muhaini). *IEEE Transactions on Artificial Intelligence*, to appear.
- “On the Need of Neuromorphic Twins to Detect Denial-of-Service Attacks on Communication Networks,” (with Holger Boche, Rafael F. Schaefer and Frank H. P. Fitzek). *IEEE/ACM Transactions on Networking*, to appear.
- “Physical Layer Security with DCO-OFDM-Based VLC under the Effects of Clipping Noise and Imperfect CSI,” (with Ekin B. Bektas, Erdal Panayirci and Panagiotis D. Diamantoulakis). *IEEE Transactions on Communications*, to appear.
- “Complexity Blowup for Computing the Capacity of Additive Colored Gaussian Noise Channels,” (with Holger Boche, Andrea Grigorescu and Rafael F. Schaefer). *IEEE Transactions on Communications*, to appear.
- “Active RIS-Assisted Multi-User Multi-Stream Transmit Precoding Relying on Scalable-Complexity Iterations,” (with Y. Chen, Hoang D. Tuan, Hongwen Yu and Lajos Hanzo). *IEEE Transactions on Communications*, to appear.
- “Decentralized Federated Learning Over Imperfect Communication Channels,” (with Weicai Li, Tiejun Lv, Wei Ni, Jingbo Zhao and Ekram Hossain). *IEEE Transactions on Communications*, to appear.
- “Deep Learning Assisted Multiuser MIMO Load Modulated Systems for Enhanced Downlink mmWave Communications,” (with Ercong Yu, Jinle Zhu, Qiang Li, Zilong Liu, Hongyang Chen and Shlomo Shamai). *IEEE Transactions on Wireless Communications*, to appear.
- “Analysis and Optimization of Wireless Federated Learning with Data Heterogeneity,” (with Xuefeng Han, Jun Li, Wen Chen, Zhen Mei, Kang Wei and Ming Ding). *IEEE Transactions on Wireless Communications*, to appear.
- “OFDMA-F2L: Federated Learning with Flexible Aggregation over an OFDMA Air Interface,” (with Xin Yuan, Shuyan Hu, Wei Ni, Xin Wang and Ekram Hossain). *IEEE Transactions on Wireless Communications*, to appear.
- “YOLO: An Efficient Terahertz Band Integrated Sensing and Communications Scheme with Beam Squint,” (with Hongliang Luo, Feifei Gao, Hai Lin and Shaodan Ma). *IEEE Transactions on Wireless Communications*, to appear.
- “On the Tacit Linearity Assumption in Common Cascaded Models of RIS-Parametrized Wireless Channels,” (with Antonin Rabault, Luc Le Magoarou, Jérôme Sol, George C. Alexandropoulos, Nir Shlezinger and Philipp del Hougne). *IEEE Transactions on Wireless Communications*, to appear.

- “Knowledge and Data Dual-Driven Channel Estimation and Feedback for Ultra-Massive MIMO Systems,” (with Kuiyu Wang, Zhen Gao, Sheng Chen, Boyu Ning and Gaojie Chen). *IEEE Transactions on Wireless Communications*, to appear.
- “Joint Sensing, Communication, and AI: A Trifecta for Resilient THz User Experiences,” (with Christina Chaccour, Walid Saad and Mérouane Debbah). *IEEE Transactions on Wireless Communications*, to appear.
- “Acceleration Estimation of Signal Propagation Path Length Changes for Wireless Sensing,” (with Jiacheng Wang, Hongyang Du, Dusit Niyato, Mu Zhou and Jiawen Kang). *IEEE Transactions on Wireless Communications*, to appear.
- “A New Class of Analog Precoding for Multi-Antenna Multi-User Communications over High-Frequency Bands,” (with Wenbo Zhu, Hoang D. Tuan, Eryk Dutkiewicz and Lajos Hanzo). *IEEE Transactions on Wireless Communications*, to appear.
- “A Reconfigurable Subarray Architecture and Hybrid Beamforming for Millimeter-Wave Dual-Function-Radar-Communication Systems,” (with Xin Jin, Tiejun Lv, Wei Ni, Zhipeng Lin, Qiuming Zhu and Ekram Hossain). *IEEE Transactions on Wireless Communications*, to appear.
- “GAI-IoV: Bridging Generative AI and Vehicular Networks for Ubiquitous Edge Intelligence,” (with Gaochang Xie, Zehui Xiong, Xinyuan Zhang, Renchao Xie, Song Guo and Mohsen Guizani). *IEEE Transactions on Wireless Communications*, to appear.
- “Performance Analysis of Finite Blocklength Transmissions Over Wiretap Fading Channels: An Average Information Leakage Perspective,” (with Milad Tatar Mamaghani, Xiangyun Zhou, Nan Yang and A. Lee Swindlehurst). *IEEE Transactions on Wireless Communications*, to appear.
- “Wireless Federated Learning over Resource-Constrained Networks: Digital versus Analog Transmissions,” (with Jiacheng Yao, Wei Xu, Zhaohui Yang, Xiaohu You and Mehdi Bennis). *IEEE Transactions on Wireless Communications*, to appear.
- “Active-RIS Enhances the Multi-User Rate of Multi-Carrier Communications,” (with Hoang D. Tuan, Ali A. Nasir, Eryk Dutkiewicz and Lajos Hanzo). *IEEE Transactions on Vehicular Technology*, to appear.
- “Data Valuation from Data-Driven Optimization,” (with Robert Mieth and Juan M. Morales). *IEEE Transactions on Control of Networked Systems*, to appear.
- “Power Beacon and NOMA-Assisted Cooperative IoT Networks with Co-Channel Interference: Performance Analysis and Deep Learning Evaluation,” (with Anh-Tu Le, Dinh-Hieu Tran, Chi-Bao Le, Phu Tran Tin, Tan N. Nguyen, Zhiguo Ding and Miroslav Voznak). *IEEE Transactions on Mobile Computing*, to appear.
- “Communication-Efficient Federated Learning over Capacity-limited Wireless Networks,” (with Jaewon Yun, Yongjeong Oh and Yo-Seb Jeon). *IEEE Transactions on Cognitive Communications and Networking*, to appear.
- “Covert Model Poisoning Against Federated Learning: Algorithm Design and Optimization,” (with Kang Wei, Jun Li, Ming Ding, Chuan Ma and Yo-Seb Jeon). *IEEE Transactions on Dependable and Secure Computing*, to appear.
- “Two-Dimensional Direction-of-Arrival Estimation Using Stacked Intelligent Metasurfaces,” (with Jiancheng An, Chau Yuen, Yong Liang Guan, Marco Di Renzo, Mérouane Debbah and Lajos Hanzo). *IEEE Journal on Selected Areas in Communications - Issue on Positioning and Sensing over Wireless Networks*, to appear.
- “Modeling and Analysis of Near-Field ISAC,” (with Boqun Zhao, Chongjun Ouyang, Yuanwei Liu and Xingqi Zhang). *IEEE Journal on Special Topics in Signal Processing - Issue on Near-Field Signal Processing: Algorithms, Implementations and Applications*, to appear.
- “Device Scheduling for Secure Aggregation in Wireless Federated Learning,” (with Na Yan, Kezhi Wang, Kangda Zhi, Cunhua Pan and Kok Keong Chai). *IEEE Internet of Things Journal*, to appear.
- “Dynamic Resource Allocation in IoT Enhanced by Digital Twins and Intelligent Reflecting Surfaces,” (with Muhammad Tariq and Sohail Ahmad). *IEEE Internet of Things Journal*, to appear.

- “Client Selection for Wireless Federated Learning with Data and Latency Homogeneity,” (with Xiaobing Chen, Xiangwei Zhou, Hongchao Zhang and Mingxuan Sun). *IEEE Internet of Things Journal*, to appear.
- “A Tutorial on Extremely Large-Scale MIMO for 6G: Fundamentals, Signal Processing, and Applications,” (with Zhe Wang, Jiayi Zhang, Hongyang Du, Dusit Niyato, Shuguang Cui, Bo Ai, Mérouane Debbah and Khaled B. Letaief). *IEEE Communications Surveys & Tutorials*, to appear.
- “Federated Learning-empowered Mobile Network Management for 5G and Beyond Networks: From Access to Core - A Comprehensive Survey,” (with Joohyung Lee, Faranaksadat Solat and Tae Yeon Kim). *IEEE Communications Surveys & Tutorials*, to appear.
- “Less Data, More Knowledge: Building Next Generation Semantic Communication Networks,” (with Christina Chaccour, Walid Saad, Mérouane Debbah and Zhu Han). *IEEE Communications Surveys & Tutorials*, to appear.
- “On Differential Privacy for Federated Learning in Wireless Systems with Multiple Base Stations,” (with Nima Tavangaran, Mingzhe Chen, Zhaohui Yang and José Mairton B. Da Silva Jr.). *IET Communications*. to appear.
- “A Graph Embedding-Based Approach for Automatic Cyber-Physical Power System Risk Assessment to Prevent and Mitigate Threats at Scale,” (with Shining Sun, Hao Huang, Emily Payne, Shamina Hossain-McKenzie, Nicholas Jacobs, Astrid Layton and Katherine Davis). *IET Cyber-Physical Systems*, to appear.
- *“Over-The-Air Federated Learning: Status Quo, Open Challenges, and Future Directions,” (with Binan Xiao, Xichen Yu, Wei Ni and Xin Wang). *Fundamental Research*, to appear.
- “Local Cache-enabled Mobile Augmented Reality in Mobile Edge Computing,” (with Joohyung Lee, Yong-jun Seo, Tae Yeon Kim and Dusit Niyato). *IEEE Communications Magazine*, to appear.
- “RIS-Empowered LEO Satellite Networks for 6G: Promising Usage Scenarios and Future Directions,” (with Mesut Toka, Byungju Lee, Jaehyup Seong, Aryan Kaushik, Juhwan Lee, Jungwoo Lee, Namyoon Lee and Wonjae Shin). *IEEE Communications Magazine*. to appear.
- “Electromagnetic Information Theory: Fundamentals, Modeling, Applications, and Open Problems,” (with Jieao Zhu, Zhongzhichao Wan, Linglong Dai and Mérouane Debbah). *IEEE Wireless Communications*, to appear.
- “Heuristic Algorithms for RIS-assisted Wireless Networks: Exploring Heuristic-aided Machine Learning,” (with Hao Zhou, Melike Erol-Kantarci and Yuanwei Liu). *IEEE Wireless Communications*, to appear.
- “Integrated Sensing and Communication for Edge Inference with End-to-End Multi-View Fusion,” (with Xibin Jin, Guoliang Li, Shuai Wang, Miaowen Wen and Chengzhong Xu). *IEEE Wireless Communications Letters*, to appear.
- “Energy-Efficient Multi-RIS-Aided Rate-Splitting Multiple Access: A Graph Neural Network Approach,” (with Bing-Jia Chen, Ronald Y. Chang and Feng-Tsun Chien). *IEEE Wireless Communications Letters*, to appear.
- “Utilizing Imperfect Resolution of Near-Field Beamforming: A Hybrid-NOMA Perspective,” (with Zhiguo Ding). *IEEE Communications Letters*, to appear.
- “Exploring the Privacy-Energy Consumption Tradeoff for Split Federated Learning,” (with Joohyung Lee, Mohamed Seif and Jungchan Cho). *IEEE Network*, to appear.
- “Generative AI-enabled Vehicular Networks: Fundamentals, Framework, and Case Study,” (with Ruichen Zhang, Ke Xiong, Hongyang Du, Dusit Niyato, Jiawen Kang and Xuemin Shen). *IEEE Network*, to appear.
- “Interactive AI with Retrieval-Augmented Generation Driven Next Generation Networking,” (with Ruichen Zhang, Hongyang Du, Yinqiu Liu, Dusit Niyato, Jiawen Kang, Sumei Sun and Xuemin (Sherman) Shen). *IEEE Network*, to appear.
- *“The Age of Generative AI and AI-Generated Everything,” (with Hongyang Du, Dusit Niyato, Jiawen Kang, Zehui Xiong, Ping Zhang, Shuguang Cui, Xuemin (Sherman) Shen, Shiwen Mao, Zhu Han, Abbas Jamalipour and Dong In Kim). *IEEE Network*, to appear.

- “Physical Beam Sharing for Communications with Multiple Low Earth Orbit Satellites,” (with Yan-Yin He and Shang-Ho (Lawrence) Tsai). *IEEE Transactions on Signal Processing*, Vol. 71, pp. 2783 - 2798, 2024.
- “Machine Learning at the Grid Edge: Data-Driven Impedance Models for Model-Free Inverters,” (with Yufei Li, Yicheng Liao, Liang Zhao, Minjie Chen, Xiongfei Wang, Lars Nordström and Prateek Mittal). *IEEE Transactions on Power Electronics*, Vol. 39, No. 8, pp. 10465 - 10481, August 2024.
- “Vision-aided Ultra-Reliable Low-Latency Communications for Smart Factory,” (with Yuan Feng, Feifei Gao, Xiaoming Tao and Shaodan Ma). *IEEE Transactions on Communications*, Vol. 72, No. 6, pp. 3439 - 3453, June 2024.
- “Enhancing the Downlink Rate-Fairness of Low-Resolution Active RIS-Aided Signaling by Closed-Form Expression-Based Optimization,” (with Yufeng Chen, Hoang Duong Tuan, Yong Fang, Hongwen Yu and Lajos Hanzo). *IEEE Transactions on Vehicular Technology*, Vol. 73, No. 6, pp. 8013 - 8029, June 2024.
- “Channel Capacity of RIS-assisted Symbiotic Radios with Imperfect Knowledge of Channels,” (with Qianqian Zhang, Hu Zhou, Ying-Chang Liang and Wei Zhang). *IEEE Transactions on Cognitive Communications and Networking*, Vol. 10, No. 3, pp. 938 - 952, June 2024.
- “Next-Generation Full-Duplex Networking Systems Empowered by Reconfigurable Intelligent Surfaces,” (with Yingyang Chen, Yuncong Li, Miaowen Wen, Duoying Zhang, Bingli Jiao, Zhiguo Ding and Theodoros A. Tsiftsis). *IEEE Transactions on Wireless Communications*, Vol. 23, No. 6, pp. 6045 - 6060, June 2024.
- “MIMO Detection under Hardware Impairments: Learning with Noisy Labels,” (with Jinman Kwon, Seunghyeon Jeon and Yo-Seb Jeon). *IEEE Transactions on Wireless Communications*, Vol. 23, No. 6, pp. 6015 - 6029, June 2024.
- “Enabling Uncoordinated Dynamic Spectrum Sharing Between LTE and NR Networks,” (with Merkebu Girmay, Vasilis Maglogiannis, Dries Naudts, Timo De Waele, Eli De Poorter, Adnan Shahid and Ingrid Moerman). *IEEE Transactions on Wireless Communications*, Vol. 23, No. 6, pp. 5953 - 5968, June 2024.
- “Max-min Rate Optimization of Low-Complexity Hybrid Multi-User Beamforming Maintaining Rate-Fairness,” (with Wenbo Zhu, Hoang D. Tuan, Eryk Dutkiewicz and Lajos Hanzo). *IEEE Transactions on Wireless Communications*, to Vol. 23, No. 6, pp. 5648 - 5662, June 2024.
- “Differentially Private Sketch-and-Solve for Community Detection via Semidefinite Programming,” (with Mohamed Seif, Yanxi Chen and Andrea J. Goldsmith). *IEEE Journal on Selected Areas in Information Theory - Issue on Information-Theoretic Methods for Trustworthy and Reliable Machine Learning*, Vol. 5, pp. 331 - 346, 2024.
- “The Worst-Case Data-Generating Probability Measure in Statistical Learning,” (with Xinying Zou, Samir M. Perlaza, Iñaki Esnaola and Eitan Altman). *IEEE Journal on Selected Areas in Information Theory - Issue on Information-Theoretic Methods for Trustworthy and Reliable Machine Learning*, Vol. 5, pp. 175 - 189, 2024.
- “Real-Time Monitoring of Chaotic Systems with Known Dynamical Equations,” (with Siyuan Yu and Wei Chen). *IEEE Transactions on Signal Processing*, Vol. 72, pp. 1251 - 1268, 2024.
- “Unleashing the Power of Edge-Cloud Generative AI in Mobile Networks: A Survey of AIGC Services,” (with Minrui Xu, Hongyang Du, Dusit Niyato, Jiawen Kang, Zehui Xiong, Shiwen Mao, Zhu Han, Abbas Jamalipour, Dong Im Kim, Xuemin (Sherman) Shen and Victor C. M. Leung). *IEEE Communications Surveys & Tutorials*, Vol. 26, No. 2, pp. 1127 - 1170, Second Quarter 2024.
- “A Survey on Model-based, Heuristic, and Machine Learning Optimization Approaches in RIS-aided Wireless Networks,” (with Hao Zhou, Melike Erol-Kantarci and Yuanwei Liu). *IEEE Communications Surveys & Tutorials*, Vol. 26, No. 2, pp. 781 - 823, Second Quarter 2024.
- “Multi-Connectivity for Multicast Video Streaming in Cellular Networks,” (with Sadaf ul Zuhra, Prasanna Chaporkar and Abhay Karandikar). *Network*, Vol. 4, No. 2, pp. 175 - 195, June 2024.
- “IRS Assisted Federated Learning: A Broadband Over-the-Air Aggregation Approach,” (with Deyou Zhang, Ming Xiao, Zhibo Pang and Lihui Wang). *IEEE Transactions on Wireless Communications*, Vol. 23, No. 5, pp. 4069 - 4082, May 2024.

- “Impact of NOMA on Age of Information: A Grant-Free Transmission Perspective,” (with Zhiguo Ding and Robert Schober). *IEEE Transactions on Wireless Communications*, Vol. 23, No. 5, pp. 3975 - 3989, May 2024.
- “Optimized Energy Dispatch for IoT-based Microgrids with Distributed Reinforcement Learning,” (with Yusen Wang, Ming Xiao and Yang You). *IEEE Transactions on Smart Grid*, Vol. 15, No. 3, pp. 2946 - 2956, May 2024.
- “Neural Network Design for Impedance Modeling of Power Electronic Systems Based on Latent Features,” (with Yicheng Liao, Yufei Li, Minjie Chen, Lars Nordström, Xiongfei Wang and Prateek Mittal). *IEEE Transactions on Neural Networks and Learning Systems - Special Issue on Explainable Representation Learning-based Intelligent Inspection and Maintenance of Complex Systems*, Vol. 5, No. 5, pp. 5968 - 5980, May 2024.
- “A Joint Communication and Computation Design for Probabilistic Semantic Communications,” (with Zhouxiang Zhao, Zhaohui Yang, Mingzhe Chen and Zhaoyang Zhang). *Entropy - Issue on Foundations of Goal-Oriented Semantic Communication in Intelligent Networks*, Vol. 26, No. 5, Article 394, May 2024.
- “Exploring Collaborative Distributed Diffusion-Based AI-Generated Content (AIGC) in Wireless Networks,” (with Hongyang Du, Ruichen Zhang, Dusit Niyato, Jiawen Kang, Zehui Xiong, Dong In Kim and Xuemin (Sherman) Shen). *IEEE Network*, Vol. 38, No. 3, pp. 178 - 186, May 2024.
- “Toward Resilient Modern Power Systems: From Single Domain to Cross-Domain Resilience Enhancement,” (with Hao Huang, Katherine R. Davis, Thomas J. Overbye, Astrid Layton, Ana Goulart and Saman Zonouz). *Proceedings of the IEEE*, Vol. 112, No. 4, pp. 365 - 398, April 2024.
- “Long-Term Rate-Fairness-Aware Beamforming Based Massive MIMO Systems,” (with Wenbo Zhu, Hoang D. Tuan, Eryk Dutkiewicz, Yong Fang and Lajos Hanzo). *IEEE Transactions on Communications*, Vol. 72, No. 4, pp. 2386 - 2398, April 2024.
- “Reasoning over the Air: A Reasoning-based Implicit Semantic-aware Communication Framework,” (with Yong Xiao, Yiwei Liao, Yingyu Li, Guangming Shi, Walid Saad, M erouane Debbah and Mehdi Bennis). *IEEE Transactions on Wireless Communications*, Vol. 23, No. 4, pp. 3839 - 3855, April 2024.
- “Random Orthogonalization for Federated Learning in Massive MIMO Systems,” (with Xizixiang Wei, Cong Shen and Jing Yang). *IEEE Transactions on Wireless Communications*, Vol. 23, No. 3, pp. 2469 - 2485, March 2024.
- “Rate-Splitting Multiple Access in Wireless Backhaul HetNets: A Decentralized Spectral Efficiency Approach,” (with Guangyuan Zheng, Miaowen Wen, Yingyang Chen and Yik-Chung Wu). *IEEE Transactions on Wireless Communications*, Vol. 23, No. 3, pp. 2413 - 2427, March 2024.
- “Beamforming Design for the Performance Optimization of Intelligent Reflecting Surface Assisted Multicast MIMO Networks,” (with Songling Zhang, Zhaohui Yang, Mingzhe Chen, Danpu Liu and Kai-Kit Wong). *IEEE Transactions on Wireless Communications*, Vol. 23, No. 3, pp. 2325 - 2339, March 2024.
- “Neyman-Pearson Criterion Driven NFV-SDN Architectures and Optimal Resource-Allocations for Statistical-QoS Based mURLLC over Next-Generation Metaverse Mobile Networks Using FBC,” (with Xi Zhang and Qixuan Zhu). *IEEE Journal on Selected Areas in Communications - Issue on Human-Centric Communication and Networking for Metaverse over 5G and Beyond Networks*, Vol. 42, No. 3, pp. 570 - 587, March 2024.
- “Stochastic Resource Optimization for Wireless Powered Hybrid Coded Edge Computing Networks,” (with Wei Chong Ng, Wei Yang Bryan Lim, Jer Shyuan Ng, Zehui Xiong, Dusit Niyato, Xuemin Sherman Shen and Chunyan Miao). *IEEE Transactions on Mobile Computing*, Vol. 23, No. 3, pp. 2022 - 2038, March 2024.
- “Federated and Asynchronized Learning for Autonomous and Intelligent Things,” (with Linlin You, Sheng Liu, Bingran Zuo, Chau Yuen and Dusit Niyato). *IEEE Network*, Vol. 38, No. 2, pp. 286 - 293, March 2024.
- “Compressive Sensing-Based Grant-Free Massive Access: A Roadmap Towards Internet of Human-Machine-Things,” (with Zhen Gao, Malong Ke, Yikun Mei, Li Qiao, Sheng Chen and Derrick Wing Kwan Ng). *IEEE Internet of Things Journal*, Vol. 11, No. 5, pp. 7411 - 7435, March 1, 2024.

- “Holographic MIMO Communications: Theoretical Foundations, Enabling Technologies, and Future Directions,” (with Tierui Gong, Panagiotis Gavrilidis, Ran Ji, Chongwen Huang, George C. Alexandropoulos, Li Wei, Mérouane Debbah and Chau Yuen). *IEEE Communications Surveys & Tutorials*, Vol. 26, No. 1, pp. 196 - 257, First Quarter 2024.
- “Seamless Connectivity: The Power of Integrating Power Line and Wireless Communications,” (with Moisés V. Ribeiro, Mateus de L. Filomeno, Andrei Camponogara, Thiago Rodrigues Oliveira, Túlio F. Moreira and Stefano Galli). *IEEE Communications Surveys & Tutorials*, Vol. 26, No. 1, pp. 1 - 40, First Quarter 2024.
- “Data-Agnostic Model Poisoning against Federated Learning: A Graph Autoencoder Approach,” (with Kai Li, Jingjing Zheng, Xin Yuan, Wei Ni and Ozgur B. Akan). *IEEE Transactions on Information Forensics and Security*. Vol. 19, pp. 3465 - 3480, 2024.
- “Reliability and Latency Analysis for Wireless Communication Systems with a Secret-Key Budget,” (with Karl-Ludwig Besser and Rafael F. Schaefer). *IEEE Transactions on Communications*, Vol. 72, No. 2, pp. 1033 - 1044, February 2024.
- “Deep Reinforcement Learning for Interference Management in UAV-based 3D Networks: Potentials and Challenges,” (with Mojtaba Vaezi, Xingqin Lin, Hongliang Zhang and Walid Saad). *IEEE Communications Magazine*, Vol. 62, No. 2, pp. 134 - 140, February 2024.
- “Resilience of Renewable Power Systems Under Climate Risks,” (with Luo Xu, Kairui Feng, Ning Lin, A.T.D. Perera, Le Xie, Chuanyi Ji, X. Andy Sun, Qinglai Guo and Mark O’Malley). *Nature Reviews Electrical Engineering*, Vol. 1, pp. 53 - 66, 2024.
- “The Generalized Degrees-of-Freedom Region of the Two-User MIMO Broadcast Channel with Delayed CSIT,” (with Tong Zhang, Shuai Wang, Yinfei Xu, Rui Wang and P. C. Ching). *IEEE Transactions on Information Theory*, Vol. 70, No. 2, pp. 1167 - 1177, February 2024.
- “Distributed Subgradient Method with Random Quantization and Flexible Weights: Convergence Analysis,” (with Zhaoyue Xia, Jun Du, Chunxiao Jiang, Zhu Han and Yong Ren). *IEEE Transactions on Cybernetics*, Vol. 54, No. 2, pp. 1223 - 1235, February 2024.
- “Modelling the Formation of Peer-to-Peer Trading Coalitions and Prosumer Participation Incentives in Transactive Energy Communities,” (with Ying Zhang, Valentin Robu, Sho Cremers, Sonam Norbu, Benoit Couraud, Merlinda Andon and David Flynn). *Applied Energy*, Vol. 355, Article 122173, February 2024.
- “NOMA-Assisted Grant-Free Transmission: How to Design the Pre-Configured SNR Levels,” (with Zhiguo Ding and Robert Schober). *IEEE Wireless Communications Letters*, Vol. 13, No. 2, pp. 412 - 416, February 2024.
- “RIS-aided Multi-Input Multi-Output Broadcast Channel Capacity,” (with Hoang D. Tuan, Ali A. Nasir, Eryk Dutkiewicz and Lajos Hanzo). *IEEE Transactions on Communications*, Vol. 72, No. 1, pp. 117 - 132, January 2024.
- “Learning Power Grid Outages with Higher-Order Topological Neural Networks,” (with Yuzhou Chen, Roshni Anna Jacob, Yulia R. Gel and Jie Zhang). *IEEE Transactions on Power Systems*, Vol. 39, No. 1, pp. 720 - 732, January 2024.
- “Multi-Tier Caching for Statistical-QoS Driven Digital Twins Over mURLLC-Based 6G Massive-MIMO Mobile Wireless Networks Using FBC,” (with Xi Zhang and Qixuan Zhu). *IEEE Journal of Selected Topics in Signal Processing - Issue on Signal Processing for Digital Twin*, Vol. 18, No. 1, pp. 34 - 49, January 2024.
- “Deterministic Modeling of MIMO Communication within Typical Hospital Patient Rooms,” (with Mohamed Ghaddar, Juan Pascual-Garcia, Jose-Maria Molina-Garca-Pardo, Ismail Ben Mabrouk and Hongjian Sun). *IEEE Antennas and Wireless Propagation Letters*, Vol. 23, No. 1, pp. 324 - 328, January 2024.
- “A Simplicial Epidemic Model for COVID-19 Spread Analysis,” (with Yuzhou Chen, Yulia R. Gel and Madhav Marathe). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 121, No. 1, Article e231317112, December 26, 2023.
- “Edge Learning for Large-Scale Internet of Things with Task-Oriented Efficient Communication,” (with Haihui Xie, Minghua Xia, Peiran Wu and Shuai Wang). *IEEE Transactions on Wireless Communications*, Vol. 22, No. 12, pp. 9517 - 9532, December 2023.

- “Block Orthogonal Sparse Superposition Codes for Ultra-Reliable Low-Latency Communications,” (with Donghwa Han, Jeonghun Park, Youngjoo Lee and Namyoon Lee). *IEEE Transactions on Communications*, Vol. 71, No. 12, pp. 6884 - 6897, December 2023.
- “K-Receiver Wiretap Channel: Optimal Encoding Order and Signaling Design,” (with Yue Qi and Mojtaba Vaezi). *IEEE Transactions on Wireless Communications*, Vol. 22, No. 12, pp. 8575 - 8586, December 2023.
- “Transformer-Empowered 6G Intelligent Networks: From Massive MIMO Processing to Semantic Communication,” (with Yang Wang, Zhen Gao, Dezhi Zhang, Sheng Chen and Deniz Gündüz). *IEEE Wireless Communications*, Vol. 30, No. 6, pp. 127 - 135, December 2023.
- “RDP-GAN: A Rényi-Differential Privacy Based Generative Adversary Network,” (with Chuan Ma, Jun Li, Ming Ding, Bo Liu, Kang Wei and Jian Weng). *IEEE Transactions on Dependable and Secure Computing*, Vol. 20, No. 6, pp. 4838 - 4852, November - December 2023.
- “Adversarial Attacks and Defenses in Machine Learning-Powered Communication Systems and Networks: A Contemporary Survey,” (with Yulong Wang, Tong Sun, Shenghong Li, Xin Yuan, Wei Ni and Ekram Hossain). *IEEE Communications Surveys & Tutorials*, Vol. 25, No. 4, pp. 2245 - 2298, Fourth Quarter 2023.
- “Coupled Models of Genomic Surveillance in Evolving Pandemics and their Applicability for Designing Timely Public Health Interventions,” (with Baltazar Espinoza, Aniruddha Adiga, Srinivasan Venkatramanan, Andrew Scott Warren, Jiangzhuo Chen, Bryan Leroy Lewis, Anil Vullikanti, Samarth Swarup, Sifat Moon, Christopher Louis Barrett, Siva Athreya, Rajesh Sundaresan, Vijay Chandru Jagadish Midhala, Ramanan Laxminarayan, Benjamin Schaffer, Simon A. Levin and Madhav V. Marathe). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 120, No. 48, Article e230522712, November 20, 2023.
- “Actor-Critic Methods for IRS Design in Correlated Channel Environments: A Closer Look into the Neural Tangent Kernel of the Critic,” (with Spilios Evmorfos and Athina P. Petropulu). *IEEE Transactions on Signal Processing*, Vol. 71, pp. 4029 - 4044, 2023.
- “Virtual-Twin Technologies in Networking,” (with Yannik Böck, Holger Boche, Rafael F. Schaefer and Frank H. P. Fitzek). *IEEE Communications Magazine - Special Issue on the Interplay of Digital Twin and 6G Wireless Network*, Vol. 61, No. 11, pp. 136 - 141, November 2023.
- “Age of Information: Can CR-NOMA Help?” (with Zhiguo Ding and Robert Schober). *IEEE Transactions on Communications*, Vol. 71, No. 11, pp. 6451 - 6467, November 2023.
- “Block-Wise Index Modulation and Receiver Design for High-Mobility OTFS Communications,” (with Mi Qian, Fei Ji, Yao Ge, Miaowen Wen and Xiang Cheng). *IEEE Transactions on Communications*, Vol. 71, No. 10, pp. 5726 - 5739, October 2023.
- “Energy-Efficient Resource Allocation for Aggregated RF/VLC Systems,” (with Sylvester Aboagye, Telex M. N. Ngatched and Octavia A. Dobre). *IEEE Transactions on Wireless Communications*, Vol. 22, No. 10, pp. 6624 - 6640, October 2023.
- “Graph Neural Network-Based Joint Beamforming for Hybrid Relay and Reconfigurable Intelligent Surface Aided Multiuser Systems,” (with Bing-Jia Chen, Ronald Y. Chang and Feng-Tsun Chien). *IEEE Wireless Communications Letters*, Vol. 12, No. 10, pp. 1811 - 1815, October 2023.
- “Security-Reliability Tradeoffs for Satellite-Terrestrial Relay Networks with a Friendly Jammer and Imperfect CSI,” (with Tan Nhat Nguyen, Trinh Van Chien, Dinh-Hieu Tran, Van-Duc Phan, Miroslav Voznak, Symeon Chatzinotas and Zhiguo Ding). *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 59, No. 5, pp. 7004 - 7019, October 2023.
- “Knowledge Transfer and Reuse: A Case Study of AI-Enabled Resource Management in RAN Slicing,” (with Hao Zhou and Melike Erol-Kantarci). *IEEE Wireless Communications*, Vol. 30, No. 5, pp. 160 - 169, October 2023.
- “Challenges and Opportunities for Beyond-5G Wireless Security,” (with Eric Ruzomberka, David J. Love, Christopher G. Brinton, Arpit Gupta and Chih-Chun Wang). *IEEE Security and Privacy*, Vol. 21, No. 5, pp. 55 - 66, September-October 2023.
- “Performance Analysis of Multiple-Antenna Ambient Backscatter Systems at Finite Blocklengths,” (with Likun Sui, Zihuai Lin, Pei Xiao and Branka Vucetic). *IEEE Internet of Things Journal*, Vol. 10, No. 18, pp. 16061 - 16075, September 15, 2023.

- “Trusted AI in Multi-agent Systems: An Overview of Privacy and Security for Distributed Learning,” (with Chuan Ma, Jun Li, Kang Wei, Bo Liu, Ming Ding, Long Yuan and Zhu Han). *Proceedings of the IEEE*, Vol. 111, No. 9, pp. 1097 - 1132, September 2023.
- “Performance-Oriented Design for Intelligent Reflecting Surface-Assisted Federated Learning,” (with Yapeng Zhao, Qingqing Wu, Wen Chen and Celimuge Wu). *IEEE Transactions on Communications*, Vol. 71, No. 9, pp. 5228 - 5234, September 2023.
- “Algorithmic Computability and Approximability of Capacity-Achieving Input Distributions,” (with Holger Boche and Rafael F. Schaefer). *IEEE Transactions on Information Theory*, Vol. 69, No. 9, pp. 5449 - 5462, September 2023.
- “A New Design of CR-NOMA and Its Application to AoI Reduction,” (with Zhiguo Ding, Octavia A. Dobre and Pingzhi Fan). *IEEE Communications Letters*, Vol. 27, No. 9, pp. 2461 - 2465, September 2023.
- “Role of Masks in Mitigating Viral Spread on Networks,” (with Yurun Tian, Anirudh Sridhar, Chai Wah Wu, Simon A. Levin and Osman Yağan). *Physical Review E*, Vol. 108, Article 014306, 2023.
- “A Smart Digital Twin Enabled Security Framework for Vehicle-to-Grid Cyber-Physical Systems,” (with Mansoor Ali, Georges Kaddoum, Wen-Tai Li, Chau Yuen and Muhammad Tariq). *IEEE Transactions on Information Forensics and Security*, Vol. 18, pp. 5258 - 5271, 2023.
- “Spatial Modulation Aided Physical Layer Security for NOMA-VLC Systems,” (with Erdal Panayirci, Mutlu Koca and Harald Haas). *IEEE Transactions on Vehicular Technology*, Vol. 72, No. 8, pp. 10286 - 10201, August 2023.
- “Quality of Security Guarantees for and with Physical Unclonable Functions and Biometric Secrecy Systems,” (with Onur Günlü and Rafael F. Schaefer). *Entropy - Special Issue on Information Security and Privacy: From IoT to IoV*, Vol. 25, No. 8, Article 1243, August 2023.
- “Sum-rate Maximization for RIS-assisted Integrated Sensing and Communication Systems with Manifold Optimization,” (with Eyad Shtaiwi, Hongliang Zhang, Ahmed Abdelhadi, A. Lee Swindlehurst and Zhu Han). *IEEE Transactions on Communications*, Vol. 71, No. 8, pp. 4909 - 4923, August 2023.
- “Cooperative Channel Capacity Learning,” (with Nunzio A. Letizia and Andrea M. Tonello). *IEEE Communication Letters*, Vol. 27, No. 8, pp. 1984 - 1988, August 2023.
- “Channel Estimation and Multipath Diversity Reception for RIS-Empowered Broadband Wireless Systems Based on Cyclic-Prefixed Single-Carrier Transmission,” (with Qiang Li, Miaowen Wen, Ertugrul Basar, George C. Alexandropoulos and Kyeong Jin Kim). *IEEE Transactions on Wireless Communications*, Vol. 22, No. 8, pp. 5145 - 5156, August 2023.
- “Adaptive Information Bottleneck Guided Joint Source-Channel Coding for Image Transmission,” (with Lunan Sun, Yang Yang, Mingzhe Chen, Caili Guo and Walid Saad). *IEEE Journal on Selected Areas in Communications - Issue on Beyond Shannon Communications: A Paradigm Shift to Catalyze 6G*, Vol. 41, No. 8, pp. 2628 - 2644, August 2023.
- “Reconfigurable Holographic Surfaces for Ultra-Massive MIMO in 6G: Practical Design, Optimization and Implementation,” (with Ruoqi Deng, Yutong Zhang, Haobo Zhang, Boya Di, Hongliang Zhang and Lingyang Song). *IEEE Journal on Selected Areas in Communications - Issue on Beyond Shannon Communications: A Paradigm Shift to Catalyze 6G*, Vol. 41, No. 8, pp. 2367 - 2379, August 2023.
- “Channel Hardening of IRS-Aided Multi-Antenna Systems: How Should IRSs Scale?” (with Ali Bereyhi, Saba Asaad, Chongjun Ouyang, Ralf R. Müller and Rafael F. Schaefer). *IEEE Journal on Selected Areas in Communications - Issue on Beyond Shannon Communications: A Paradigm Shift to Catalyze 6G*, Vol. 41, No. 8, pp. 2321 - 2335, August 2023.
- “NOMA-Based Coexistence of Near-Field and Far-Field Massive MIMO Communications,” (with Zhiguo Ding and Robert Schober). *IEEE Wireless Communications Letters*, Vol. 12, No. 8, pp. 1429 - 1433, August 2023.
- “Deep Reinforcement Learning Based State of Charge Estimation and Management of EV Batteries,” (with Irum Saba, Muhammad Tariq and Mukhtar Ullah). *IET Smart Grid*, Vol. 6, No. 4, pp. 422 - 431, August 2023.

- “Personalized Federated Learning with Differential Privacy and Convergence Guarantee,” (with Kang Wei, Jun Li, Chuan Ma, Ming Ding, Wen Chen, Jun Wu and Meixia Tao). *IEEE Transactions on Information Forensics and Security*, Vol. 18, pp. 4488 - 4503, 2023.
- “Device Scheduling in Over-the-Air Federated Learning via Matching Pursuit,” (with Ali Bereyhi, Adela Vagollari, Saba Asaad, Ralf R. Müller and Wolfgang Gerstaecker). *IEEE Transactions on Signal Processing*, Vol. 71, pp. 2188 - 2203, 2023.
- “Secure and Private Distributed Source Coding with Private Keys and Decoder Side Information,” (with Onur Günlü, Rafael F. Schaefer and Holger Boche). *IEEE Transactions on Information Forensics and Security*, Vol. 18, pp. 3803 - 3816, 2023.
- “Quantized RIS-aided Multi-user Secure Beamforming against Multiple Eavesdroppers,” (with Hoang D. Tuan, Yufeng Chen, Ali A. Nasir and Eryk Dutkiewicz). *IEEE Transactions on Information Forensics and Security*, Vol. 18, pp. 4695 - 4706, 2023.
- “Achieving the UN’s Sustainable Energy Targets through Dynamic Operating Limits,” (with Wayes Tushar, M. Imran Azim, Mollah Rezaul Alam, Chau Yuen, Rahul Sharma, and Tapan Saha). *iScience*, Vol. 26, Article 107194, July 21, 2023.
- “Low-Resolution Hybrid Beamforming in Millimeter-wave Multi-user Systems,” (Hongwen Yu, Hoang D. Tuan, Eryk Dutkiewicz and Lajos Hanzo). *IEEE Transactions on Vehicular Technology*, Vol. 72, No. 7, pp. 8941 - 8955, July 2023.
- *“A Tutorial on Holographic MIMO Communications - Part I: Channel Modeling and Channel Estimation,” (with Jiancheng An, Chau Yuen, Chongwen Huang, Mérouane Debbah and Lajos Hanzo). *IEEE Communications Letters*, Vol. 27, No. 7, pp. 1664 - 1668, July 2023.
- *“A Tutorial on Holographic MIMO Communications - Part II: Performance Analysis and Holographic Beamforming,” (with Jiancheng An, Chau Yuen, Chongwen Huang, Mérouane Debbah and Lajos Hanzo). *IEEE Communications Letters*, Vol. 27, No. 7, pp. 1669 - 1673, July 2023.
- *“A Tutorial on Holographic MIMO Communications - Part III: Open Opportunities and Challenges,” (with Jiancheng An, Chau Yuen, Chongwen Huang, Mérouane Debbah and Lajos Hanzo). *IEEE Communications Letters*, Vol. 27, No. 7, pp. 1674 - 1678, July 2023.
- “Semi-Data-Aided Channel Estimation for MIMO Systems via Reinforcement Learning,” (with Tae-Kyoung Kim, Yo-Seb Jeon, Jun Li and Nima Tavangaran). *IEEE Transactions on Wireless Communications*, Vol. 22, No. 7, pp. 4565 - 4579, July 2023.
- “Optimal Resource Allocation for Loss-Tolerant Multicast Video Streaming,” (with Sadaf ul Zuhra, Karl-Ludwig Besser, Prasanna Chaporkar and Abhay Karandikar). *Entropy*, Vol. 25, No. 7, Article 1045, July 2023.
- “Asymptotic Learning Requirements for Stealth Attacks on Linearized State Estimation,” (with Ke Sun, Iñaki Esnaola and Antonia M. Tulino). *IEEE Transactions on Smart Grid*, Vol. 14, No. 4, pp. 3189 - 3200, July 2023.
- “Next-Generation URLLC with Massive Devices: A Unified Semi-Blind Detection Framework for Sourced and Unsourced Random Access,” (with Malong Ke, Zhen Gao, Mingyu Zhou, Dezhi Zheng and Derrick Wing Kwan Ng). *IEEE Journal on Selected Areas in Communications - Issue on xURLLC in 6G: Next Generation Ultra-Reliable and Low-Latency Communications*, Vol. 41, No. 7, pp. 2223 - 2244, July 2023.
- “Diversity Enabled Low-Latency Wireless Communications with Hard Delay Constraints,” (with Changkun Li and Wei Chen). *IEEE Journal on Selected Areas in Communications - Issue on xURLLC in 6G: Next Generation Ultra-Reliable and Low-Latency Communications*, Vol. 41, No. 7, pp. 2107 - 2122, July 2023.
- *“Peer-to-peer Trading in Support of Decarbonizing the Electricity Sector,” (with Wayes Tushar, Chau Yuen and Tapan K. Saha). *The Bridge - Special Issue on Engineering the Energy Transition*, Vol. 53, No. 2, pp. 65 - 72, Summer 2023.
- “Spreading Processes with Mutations over Multilayer Networks,” (with Mansi Sood, Anirudh Sridhar, Rashad Eletreby, Chai Wah Wu, Simon A. Levin and Osman Yagan). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 120, No. 4, Article e2302245120, June 8, 2023.

- “Sensing RISs: Enabling Dimension-Independent CSI Acquisition for Beamforming,” (with Jieao Zhu, Kunzan Liu, Zhongzhichao Wan, Linglong Dai and Tie Jun Cui). *IEEE Transactions on Information Theory*, Vol. 69, No. 6, pp. 3795 - 3813, June 2023.
- “Twenty-five Years of Signal Processing Advances for Multiantenna Mobile Communications,” (with Emil Björnson, Yonina C. Eldar, Erik G. Larsson and Angel Lozano). *IEEE Signal Processing Magazine - 75th Anniversary of Signal Processing Society Special Issue*, Vol. 40, No. 4, pp. 107 - 117, June 2023.
- “Optimizing Multidocument Summarization by Blending Reinforcement Learning Policies,” (with Di-Jia Su, Difei Su and John M. Mulvey). *IEEE Transactions on Artificial Intelligence*, Vol. 4, No. 3, pp. 416 - 427, June 2023.
- “Quasi-Synchronous Random Access for Massive MIMO-Based LEO Satellite Constellations,” (with Keke Ying, Zhen Gao, Sheng Chen, Mingyu Zhou, Dezhi Zheng, Symeon Chatzinotas and Björn Ottersten). *IEEE Journal on Selected Areas in Communications - Issue on 3GPP Technologies: 5G-Advanced and Beyond*, Vol. 41, No. 6, pp. 1702 - 1722, June 2023.
- “Hybrid Relay and Reconfigurable Intelligent Surface Assisted Multiuser MISO Systems,” (with Te-Yi Kan, Ronald Y. Chang, Feng-Tsun Chien and Bing-Jia Chen). *IEEE Transactions on Vehicular Technology*, Vol. 72, No. 2, pp. 7653 - 7668, June 2023.
- “A Kullback-Leibler Divergence Variant of the Bayesian Cramér-Rao Bound,” (with Michael Fauß and Alex Dytso). *Signal Processing*, Vol. 207, Article 108933, June 2023.
- “Towards 6G Hyper-Connectivity: Vision, Challenges, and Key Enabling Technologies,” (with Howon Lee, Byungju Lee, Heecheol Yang, Junghyun Kim, Seungnyun Kim, Wonjae Shin and Byonghyo Shim). *Journal of Communications and Networks*, Vol. 25, No. 3, pp. 344 - 354, June 2023.
- “Reconfigurable Intelligent Computational Surfaces: When Wave Propagation Control Meets Computing,” (with Bo Yang, Xuelin Cao, Jindan Xu, Chongwen Huang, George C. Alexandropoulos, Linglong Dai, Mérouane Debbah and Chau Yuen). *IEEE Wireless Communications*, Vol. 30, No. 3, pp. 120 - 128, June 2023.
- “Intelligent and Low Overhead Network Synchronization for Large-Scale Industrial IoT Systems in the 6G Era,” (with Xianbin Wang, Pengyi Jia and Xuemin (Sherman) Shen). *IEEE Network*, Vol. 37, No. 3, pp. 76 - 84, May/June 2023.
- “Federated Deep Learning Meets Autonomous Vehicle Perception: Design and Verification,” (with Shuai Wang, Chengyang Li, Derek Wing Kwan Ng, Yonina C. Eldar, Qi Hao and Chengzhong Xu). *IEEE Network*, Vol. 37, No. 3, pp. 16 - 25, May/June 2023.
- “Two-Timescale Design for Reconfigurable Intelligent Surface-Aided Massive MIMO Systems with Imperfect CSI,” (with Kangda Zhi, Cunhua Pan, Hong Ren, Kezhi Wang, Maged Elkashlan, Marco Di Renzo, Robert Schober, Jiangzhou Wang and Lajos Hanzo). *IEEE Transactions on Information Theory*, Vol. 65, No. 5, pp. 3001 - 3033, May 2023.
- “Blockchain Assisted Federated Learning over Wireless Channels: Dynamic Resource Allocation and Client Scheduling,” (with Xiumei Deng, Jun Li, Chuan Ma, Kang Wei, Long Shi, Ming Ding and Wen Chen). *IEEE Transactions on Wireless Communications*, Vol. 22, No. 5, pp. 3537 - 3553, May 2023.
- “Regularized Zero-Forcing Aided Hybrid Beamforming for Millimeter-Wave Multi-user MIMO Systems,” (with Hongwen Yu, Hoang D. Tuan, Eryk Dutkiewicz and Lajos Hanzo). *IEEE Transactions on Wireless Communications*, Vol. 22, No. 5, pp. 3280 - 3295, May 2023.
- “On the Road to 6G: Visions, Requirements, Key Technologies and Testbeds,” (with Cheng-Xiang Wang, Xiaohu You, Xiqi Gao, Xiuming Zhu, Zixin Li, Chuan Zhang, Haiming Wang, Yongming Huang, Yunfei Chen, Harald Haas, John S. Thompson, Erik G. Larsson, Marco Di Renzo, Wen Tong, Peiyong Zhu, Xuemin (Sherman) Shen and Lajos Hanzo). *Communications Surveys & Tutorials*, Vol. 25, No. 2, pp. 905 - 974, Second Quarter 2023.
- “Quickest Inference of Network Cascades with Noisy Information,” (with Anirudh Sridhar). *IEEE Transactions on Information Theory*, Vol. 69, No. 4, pp. 2494 - 2522, April 2023.
- “Decentralized Stochastic Optimization with Inherent Privacy Protection,” (with Yongqiang Wang). *IEEE Transactions on Automatic Control*, Vol. 68, No. 4, pp. 2293 - 2308, April 2023.

- “Joint Beam Management and Power Allocation in THz-NOMA Networks,” (with Zhiguo Ding). *IEEE Transactions on Communications*, Vol. 71, No. 4, pp. 2059 - 2073, April 2023.
- “Real-time Monitoring with Timing Side Information,” (with Siyuan Yu and Wei Chen). *IEEE Transactions on Communications*, Vol. 71, No. 4, pp. 1953 - 1969, April 2023.
- “Olfaction-inspired MCs: Molecule Mixture Shift Keying and Cross-Reactive Receptor Arrays,” (with Vahid Jamali, Helene M. Loos, Andrea Buettner and Robert Schober). *IEEE Transactions on Communications*, Vol. 71, No. 4, pp. 1894 - 1911, April 2023.
- “Communication-Efficient Distributed Learning: An Overview,” (with Xuanyu Cao, Tamer Basar, Suhas Diggavi, Yonina C. Eldar, Khaled B. Letaief and Junshan Zhang). *IEEE Journal on Selected Areas in Communications - Issue on Communication-Efficient Distributed Learning over Networks*, Vol. 41, No. 4, pp. 851 - 873, April 2023.
- “Joint Convexity of Error Probability in Blocklength and Transmit Power in the Finite Blocklength Regime,” (with Yao Zhu, Yulin Hu, Xiaopeng Yuan, M. Cenk Gursoy and Anke Schmeink). *IEEE Transactions on Wireless Communications*, Vol. 22, No. 4, pp. 2409 - 2423, April 2023.
- “Amplitude-Varying Perturbation for Balancing Privacy and Utility in Federated Learning,” (with Xin Yuan, Wei Ni, Ming Ding, Kang Wei and Jun Li). *IEEE Transactions on Information Forensics and Security*, Vol. 18, pp. 1884 - 1897, 2023.
- “Cooperative Task Offloading and Block Mining in Blockchain-based Edge Computing with Multi-agent Deep Reinforcement Learning,” (with Dinh C. Nguyen, Ming Ding, Pubudu N. Pathirana, Aruna Seneviratne and Jun Li). *IEEE Transactions on Mobile Computing*, Vol. 22, No. 4, pp. 2021 - 2037, April 2023.
- “Dynamic UAV Deployment for Differentiated Services: A Multi-Agent Imitation Learning Based Approach,” (with Xiaojie Wang, Zhaolong Ning, Song Guo, Miaowen Wen and Lei Guo). *IEEE Transactions on Mobile Computing*, Vol. 22, No. 4, pp. 2131 - 2146, April 2023.
- “Conditional Mean Estimation in Gaussian Noise: A Meta Derivative Identity with Applications,” (with Alex Dytso and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 69, No. 3, pp. 1883 - 1898, March 2023.
- “Energy Efficiency of Massive Random Access in MIMO Quasi-Static Rayleigh Fading Channels with Finite Blocklength,” (with Junyuan Gao, Yongpeng Wu, Shuo Shao and Wei Yang). *IEEE Transactions on Information Theory*, Vol. 69, No. 3, pp. 1618 - 1657, March 2023.
- “Active RIS vs. Passive RIS: Which Will Prevail in 6G?” (with Zijian Zhang, Linglong Dai, Xibi Chen, Changhao Liu, Fan Yang and Robert Schober). *IEEE Transactions on Communications*, Vol. 71, No. 3, pp. 1707 - 1725, March 2023.
- “Secure Federated Learning for Cognitive Radio Sensing,” (with Magorzata Wasilewska and Hanna Bogucka). *IEEE Communications Magazine*, Vol. 61, No. 3, pp. 68 - 73, March 2023.
- “Rate-Splitting Multiple Access for Downlink MIMO: A Generalized Power Iteration Approach,” (with Jeonghun Park, Jinseok Choi, Namyoon Lee and Wonjae Shin). *IEEE Transactions on Wireless Communications*, Vol. 22, No. 3, pp. 1588 - 1603, March 2023.
- “Ultra-Reliable and Low-Latency Multiple-Antenna Communications in the High SNR Regime,” (with Yalei Wang, Changkun Li and Wei Chen). *IEEE Wireless Communications Letters*, Vol. 12, No. 3, pp. 461 - 465, March 2023.
- “Peer-to-Peer Energy Sharing: A Comprehensive Review,” (with Wayes Tushar, Sohrab Nizami, M. Imran Azim, Chau Yuen, David B. Smith and Tapan Saha). *Foundations and Trends in Electric Energy Systems*, Vol 6, No. 1, pp. 1 - 82, 2023. [Also published in monograph form by Now Publishers, Hanover, MA.]
- *“What Physical Layer Security Can Do for 6G Security,” (with Miroslav Mitev, Arsenia Chorti, and Gerhard Fettweis). *IEEE Open Journal of Vehicular Technology*, Vol. 4, pp. 375 - 388, 2023.
- “A Survey of Cyber Physical Systems from a Game-Theoretic Perspective,” (with Wayes Tushar, Chau Yuen, Sohrab Nizami, Mollah Rezaul Alam, David B. Smith and Tapan Kumar Saha). *IEEE Access*, Vol. 11, pp. 9799 - 9834, 2023.
- “Statistics and Data Science for Cybersecurity,” (with Soumya Kar, José Moura, Joshua Neil, Melissa Turcotte, Bawei Xi and Alfred Hero). *Harvard Data Science Review*, Vol. 5, No. 1, Winter 2023.

- “RIS-Assisted Visible Light Communication Systems: A Tutorial,” (with Sylvester Aboagye, Alain R. Ndjiongue, Telex M. N. Ngatched and Octavia A. Dobre). *IEEE Communications Surveys & Tutorials*, Vol. 25, No. 1, pp. 251 - 288, First Quarter 2023
- “QR Decomposition-based Cyclic Prefixed Single-Carrier Transmissions for Cooperative Communications: Concepts and Research Landscape,” (with Kyeong Jin Kim, Hongwu Liu, Miaowen Wen, Theodoros A. Tsiftsis and Philip V. Orlick). *IEEE Communications Surveys & Tutorials*, Vol. 25, No. 1, pp. 133 - 155, First Quarter 2023.
- “Communication-Efficient Federated Learning via Quantized Compressed Sensing,” (with Yongjeong Oh, Namyoon Lee and Yo-Seb Jeon). *IEEE Transactions on Wireless Communications*, Vol. 22, No. 2, pp. 1087 - 1100, February 2023.
- “Joint Communication and Computation Offloading for Ultra-Reliable and Low-Latency with Multi-tier Computing,” (with Dang Van Huynh, Van-Dinh Nguyen, Symeon Chatzinotas, Saeed R. Khosravi-rad and Trung Q. Duong). *IEEE Journal on Selected Areas in Communications - Issue on Multi-Tier Computing for Next Generation Wireless Networks*, Vol. 41, No. 2, pp. 521 - 537, February 2023.
- “Edge-Assisted Multi-Layer Offloading Optimization of LEO Satellite-Terrestrial Integrated Networks,” (with Xuelin Cao, Bo Yang, Yulong Shen, Chau Yuen, Yan Zhang, Zhu Han and Lajos Hanzo). *IEEE Journal on Selected Areas in Communications - Issue on Multi-Tier Computing for Next Generation Wireless Networks*, Vol. 41, No. 2, pp. 381 - 398, February 2023.
- “Uncertainty Quantification for Nonconvex Tensor Completion: Confidence Intervals, Heteroscedasticity and Optimality,” (with Changxiao Cai and Yuxin Chen). *IEEE Transactions on Information Theory*, Vol. 69, No. 1, pp. 407 - 452, January 2023.
- “Toward Ambient Intelligence: Federated Edge Learning with Task-Oriented Sensing, Computation, and Communication Integration,” (with Peixi Liu, Guangxu Zhu, Shuai Wang, Wei Jiang, Wu Luo and Shuguang Cui). *IEEE Journal on Selected Topics in Signal Processing - Issue on Distributed Signal Processing for Edge Learning in B5G IoT Networks*, Vol. 17, No. 1, pp. 158 - 172, January 2023.
- “Joint Design for Simultaneously Transmitting and Reflecting (STAR) RIS Assisted NOMA Systems,” (with Jiakuo Zuo, Yuanwei Liu, Zhiguo Ding and Lingyang Song). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 1, pp. 611 - 626, January 2023.
- “A Unified Framework for Pushing in Two-Tier Heterogeneous Networks with nmWave Hotspots,” (with Zhanyuan Xie and Wei Chen). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 1, pp. 19 - 31, January 2023
- “Goal-Oriented Quantization: Analysis, Design, and Application to Resource Allocation,” (with Hang Zou, Chao Zhang, Samson Lasaulce and Lucas Saludjian). *IEEE Journal on Selected Areas in Communications - Issue on Beyond Transmitting Bits: Context, Semantics and Task-Oriented Communications*, Vol. 41, No. 1, pp. 42 - 54, January 2023.
- “Energy Harvesting from the UNB-PLC Spectrum: Hidden Opportunities for IoT Devices,” (with Victor Fernandes, Nathan Cravo, Henrique L. M. Monteiro, Dushantha Nalin K. Jayakody and Moisés V. Ribeiro). *IEEE Internet of Things Journal*, Vol. 10, No. 2, pp. 1236 - 1247, January 15, 2023.
- “Energy-Efficient Information Placement and Delivery Using UAVs,” (with Ahmed A. Al-Habob, Octavia A. Dobre and Sami Muhaidat). *IEEE Internet of Things Journal*, Vol. 10, No. 1, pp. 357 - 366, January 1, 2023.
- “Physical Layer Security in AF-Based Cooperative SWIPT Sensor Networks,” (with Tan N. Nguyen, Dinh-Hieu Tran, Trin Van Chien, Van-Duc Phan, Nhat-Tien Nguyen, Miroslav Voznak, Symeon Chatzinotas and Björn Ottersten). *IEEE Sensors Journal*, Vol. 23, No. 1, pp. 689 - 705, January 1, 2023.
- “Approximative Threshold Optimization from Single-Antenna to Massive SIMO Authentication,” (with Stefan Roth, Aydin Sezgin and Roman Bessel). *IEEE Open Journal of Vehicular Technology - Special Issue on Recent Advances in Security and Privacy for 6G Networks*, Vol. 4, pp. 193 - 207, 2023.
- “Distributed Stochastic Gradient Descent: Nonconvexity, Nonsmoothness and Convergence to Local Minima,” (with Brian Swenson, Ryan Murray and Soumya Kar). *Journal of Machine Learning Research*, Vol. 23, Article 328, 2022.

- “Learning Unbalanced and Sparse Low-Order Tensors,” (with Pham Minh Hoang, Hoang Duong Tuan, Tran Thai Son and Lajos Hanzo). *IEEE Transactions on Signal Processing*, Vol. 70, pp. 5624 - 5638, 2022.
- “Recent Progress in Computability for Prediction and Wiener Filter Theory,” (with Holger Boche and Volker Pohl). *Transactions of A. Razmadze Mathematical Institute*, Vol. 176, No. 3, pp. 323 - 344, 2022.
- “Rate-Splitting Multiple Access: Fundamentals, Survey, and Future Research Trends,” (with Yijie Mao, Onur Dizdar, Bruno Clerckx, Robert Schober and Petar Popovski). *IEEE Communications Surveys & Tutorials*, Vol. 24, No. 4, pp. 2073 - 2126, Fourth Quarter 2022.
- “Challenge-Response Physical Layer Authentication Over Partially Controllable Channels,” (with Stefano Tomasin, Hongliang Zhang and Arsenia Chorti). *IEEE Communications Magazine*, Vol. 60, No. 12, pp. 138 - 144, December 2022.
- “Private Key and Decoder Side Information for Secure and Private Source Coding,” (with Onur Günlü, Rafael F. Schaefer and Holger Boche). *Entropy - Special Issue on Information Theoretic Methods for Future Communication Systems*, Vol. 24, No. 12, Article 1716, December 2022. [2023 IEEE ComSoc CSIM TC Best Journal Paper Award]
- “Learning from Peers: Deep Transfer Reinforcement Learning for Joint Radio and Cache Resource Allocation in 5G RAN Slicing,” (with Hao Zhou and Melike Erol-Kantarci). *IEEE Transactions on Cognitive Communications and Networking*, Vol. 8, No. 4, pp. 1925 - 1941, December 2022.
- “Make Smart Decisions Faster: Deciding D2D Resource Allocation via Stackelberg Game Guided Multi-Agent Deep Reinforcement Learning,” (with Dian Shi, Liang Li, Tomoaki Ohtsuki, Miao Pan and Zhu Han). *IEEE Transactions on Mobile Computing*, Vol. 21, No. 12, pp. 4426 - 4438, December 2022.
- “Aerial Reconfigurable Intelligent Surfaces Meet Mobile Edge Computing,” (with Bodong Shang and Lingjia Liu). *IEEE Wireless Communications*, Vol. 29, No. 6, pp. 104 - 111, December 2022.
- “Hybrid Power Line/Wireless System with Optimal Subcarrier Permutation under Uniform and Optimal Power Allocation,” (with Mateus de Lima Filomeno, Vanderlan J. E. de Lima, Marcello L. R. de Campos and Moisés V. Ribeiro). *IEEE Internet of Things Journal*, Vol. 9, No. 23, pp. 23915 - 23926, December 1, 2022.
- “Intelligent Omni-Surfaces: Reflection-Refraction Circuit Model, Full-Dimensional Beamforming, and System Implementation.” (with Shuhao Zeng, Hongliang Zhang, Boya Di, Yuanwei Liu, Marco Di Renzo, Zhu Han and Lingyang Song). *IEEE Transactions on Communications*, Vol. 70, No. 11, pp. 7711 - 7727, November 2022.
- “Finite-Blocklength RIS-Aided Transmit Beamforming,” (with Monir Abughalwa, Hoang D. Tuan, Diep N. Nguyen and Lajos Hanzo). *IEEE Transactions on Vehicular Technology*, Vol. 71, No. 11, pp. 12374 - 12379, November 2022.
- “Security-Reliability Trade-Off Analysis for SWIPT- and AF-Based IoT Networks with Friendly Jammers,” (with Tan N. Nguyen, Dinh-Hieu Tran, Trinh Van Chien, Van-Duc Phan, Miroslav Voznak, Phu Tran Tin, Symeon Chatzinotas and Derrick Wing Kwan Ng). *IEEE Internet of Things Journal*, Vol. 9, No. 21, pp. 21662 - 21675, November 1, 2022.
- “Ensembles of Realistic Power Distribution Networks,” (with Rounak Meyur, Anil Vullikanti, Samarth Swarup, Henning Mortveit, Virgilio Centenoc, Arun Phadke and Madhav Marathe). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 119, No. 42, Article e2205772119, October 11, 2022.
- “Low-Resolution RIS-Aided Multiuser MIMO Signaling,” (with Ali A. Nasir, Hoang D. Tuan, Eryk Dutkiewicz and Lajos Hanzo). *IEEE Transactions on Communications*, Vol. 70, No. 10, pp. 6517 - 6531, October 2022.
- “On Optimal Quantization in Sequential Detection,” (with Michael Fauß and Manuel S. Stein). *IEEE Transactions on Signal Processing*, Vol. 70, pp. 4440 - 4453, 2022.
- “Queue-Aware Finite-Blocklength Coding for Ultra-Reliable and Low-Latency Communications: A Cross-Layer Approach,” (with Xiaoyu Zhao and Wei Chen). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 10, pp. 8786 - 8802, October 2022.

- “Mutualistic Mechanism in Symbiotic Radios: When Can the Primary and Secondary Transmissions be Mutually Beneficial?” (with Qianqian Zhang, Ying-Chang Liang and Hong-Chuan Yang). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 10, pp. 8036 - 8050, October 2022
- “Blockchain Assisted Decentralized Federated Learning (BLADE-FL): Performance Analysis and Resource Allocation,” (with Jun Li, Yumeng Shao, Kang Wei, Ming Ding, Chuan Ma, Long Shi and Zhu Han). *IEEE Transactions on Parallel and Distributed Systems*, Vol. 33, No. 10, pp. 2401 - 2415, October 2022.
- “Holographic MIMO for LEO Satellite Communications Aided by Reconfigurable Holographic Surfaces,” (with Ruoqi Deng, Boya Di, Hongliang Zhang and Lingyang Song). *IEEE Journal on Selected Areas in Communications - Issue on Antenna Array Enabled Space/Air/Ground Communications and Networking*, Vol. 40, No. 10, pp. 3071 - 3085, October 2022.
- “A DFT-Based Method for Estimating Interharmonics in Wind Power Generation,” (with Henrique L. M. Monteiro, Andrei Camponogara, Moisés V. Ribeiro and Carlos A. Duque). *IET Smart Grid*, Vol. 5, No. 5, pp. 332 - 346, October 2022.
- “Towards Industry 5.0: Intelligent Reflecting Surface in Smart Manufacturing,” (with Md. Noor-A-Rahim, Fadhil Firyaguna, Jobish John, M. Omar Khyam, Dirk Pesch, Eddie Armstrong and Holger Claussen). *IEEE Communications Magazine*, Vol. 60, No. 10, pp. 72 - 78, October 2022.
- “Transactive Energy for Low Voltage Residential Networks: An Overview,” (with Sohrab Nizami, Wayes Tushar, M. Jahangir Hossain, Chau Yuen and Tapan Saha). *Applied Energy*, Vol. 323, Article 119556, October 1, 2022.
- “Toward Ubiquitous Sensing and Localization with Reconfigurable Intelligent Surfaces,” (with Hongliang Zhang, Boya Di, Kaigui Bian, Zhu Han and Lingyang Song). *Proceedings of the IEEE - Special Issue on Reconfigurable Intelligent Surfaces*, Vol. 110, No. 9, pp. 1401 - 1422, September 2022.
- “A State-of-the-Art Survey on Reconfigurable Intelligent Surface Assisted Non-Orthogonal Multiple Access Networks,” (with Zhiguo Ding, Lu Lv, Fang Fang, Octavia A. Dobre, George K. Karagiannidis, Naofal Al-Dhahir and Robert Schober). *Proceedings of the IEEE - Special Issue on Reconfigurable Intelligent Surfaces*, Vol. 110, No. 9, pp. 1358 - 1379, September 2022.
- “Improved Information Theoretic Generalization Bounds for Distributed, Federated, and Iterative Learning,” (with Leighton P. Barnes and Alex Dytso). *Entropy - Special Issue on Information Theory and Machine Learning*, Vol. 24, No. 9, Article 1178, September 2022.
- “Scalable User Rate and Energy-Efficiency Optimization in Cell-Free Massive MIMO,” (with Hoang D. Tuan, Ali A. Nasir, Hien Quoc Ngo and Eryk Dutkiewicz). *IEEE Transactions on Communications*, Vol. 70, No. 9, pp. 6050 - 6065, September 2022.
- “An Indirect Rate-Distortion Characterization for Semantic Sources: General Model and the Case of Gaussian Observation,” (with Jiakun Liu, Shuo Shao and Wenyi Zhang) *IEEE Transactions on Communications*, Vol. 70, No. 9, pp. 5946 - 5959, September 2022.
- “Meta-Reinforcement Learning for Reliable Communication in THz/VLC Wireless VR Networks,” (with Yining Wang, Mingzhe Chen, Zhaohui Yang, Walid Saad, Tao Luo and Shuguang Cui). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 9, pp. 7778 - 7793, September 2022.
- “Delay-Phase Precoding for Wideband THz Massive MIMO,” (with Linglong Dai, Jingbo Tan and Zhi Chen). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 9, pp. 7271 - 7286, September 2022.
- “Meta-Wall: Intelligent Omni-Surfaces Aided Multi-cell MIMO Communications,” (with Yutong Zhang, Boya Di, Hongliang Zhang, Zhu Han and Lingyang Song). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 9, pp. 7026 - 7039, September 2022.
- “Performance Optimization for Semantic Communications: An Attention-based Reinforcement Learning Approach,” (with Yining Wang, Mingzhe Chen, Tao Luo, Walid Saad, Dusit Niyato and Shuguang Cui). *IEEE Journal on Selected Areas in Communications - Issue on Machine Learning in Communications and Networks*, Vol. 40, No. 9, pp. 2598 - 2613, September 2022.
- “Phase Shift Design in RIS Empowered Wireless Networks: From Optimization to AI-Based Methods,” (with Zongze Li, Shuai Wang, Qingfeng Lin, Yang Li, Miaowen Wen and Yik-Chung Wu). *Network*, Vol. 2, No. 3, pp. 398 - 418, September 2022.

- “An Anti-jamming Multiple Access Channel Game Using Latency as Metric,” (with Andrey Garnaev, Athina Petropulu and Wade Trappe). *IEEE Wireless Communications Letters*, Vol. 11, No. 9, pp. 1800 - 1804, September 2022.
- “User-Level Privacy-Preserving Federated Learning: Analysis and Performance Optimization” (with Kang Wei, Jun Li, Ming Ding, Chuan Ma, Hang Su and Bo Zhang). *IEEE Transactions on Mobile Computing*, Vol. 21, No. 9, pp. 3388 - 3401, September 1, 2022.
- “Federated Learning over Wireless IoT Networks with Optimized Communication and Resources,” (with Hao Chen, Shaocheng Huang, Deyou Zhang, Ming Xiao and Mikael Skoglund). *IEEE Internet of Things Journal*, Vol. 9, No. 17, pp. 16592 - 16605, September 1, 2022.
- “Minimizing the Age-of-Critical-Information: An Imitation Learning-based Scheduling Approach Under Partial Observations,” (with Xiaojie Wang, Zhaolong Ning, Song Guo and Miaowen Wen). *IEEE Transactions on Mobile Computing*, Vol. 21, No. 9, pp. 3225 - 3238, September 1, 2022.
- “Distributed Gradient Flow: Nonsmoothness, Nonconvexity, and Saddle Point Evasion,” (with Brian Swenson, Ryan Murray and Soumya Kar). *IEEE Transactions on Automatic Control*, Vol. 67, No. 8, pp. 3949 - 3964, August 2022.
- “STAR-RISs: A Correlated T&R Phase-Shift Model and Practical Phase-Shift Configuration Strategies,” (with Jiaqi Xu, Yuanwei Liu, Xidong Mu, Nei Kato and Robert Schober). *IEEE Journal of Selected Topics in Signal Processing - Issue on Advanced Signal Processing for Reconfigurable Intelligent Surface-aided 6G Networks*, Vol. 16, No. 5, pp. 1097 - 1111, August 2022.
- “RIS-assisted UAV Communications for IoT with Wireless Power Transfer Using Deep Reinforcement Learning,” (with Khoi Khac Nguyen, Antonino Masaracchia, Tan Do-Duy and Trung Q. Duong). *IEEE Journal of Selected Topics in Signal Processing - Issue on Advanced Signal Processing for Reconfigurable Intelligent Surface-aided 6G Networks*, Vol. 16, No. 5, pp. 1086 - 1096, August 2022.
- “Meta-material Sensor Based Internet of Things: Design, Optimization, and Implementation,” (with Jingzhi Hu, Hongliang Zhang, Boya Di, Zhu Han and Lingyang Song). *IEEE Transactions on Communications*, Vol. 70, No. 8, pp. 5645 - 5662, August 2022.
- “MetaSketch: Wireless Semantic Segmentation by Reconfigurable Intelligent Surfaces,” (with Jingzhi Hu, Hongliang Zhang, Kaigui Bian, Zhu Han and Lingyang Song). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 8, pp. 5916 - 5929, August 2022.
- “When Federated Learning Meets Blockchain: A New Distributed Learning Paradigm,” (with Chuan Ma, Jun Li, Long Shi, Ming Ding, Taotao Wang, and Zhu Han). *IEEE Computational Intelligence Magazine*, Vol. 17, No. 3, pp. 26 - 23, August 2022.
- “Lead Federated Neuromorphic Learning for Edge Artificial Intelligence,” (with Helin Yang, Kwok-Yan Lam, Liang Xiao, Zehui Xiong, Hao Hu and Dusit Niyato). *Nature Communications*, Vol. 12, Article 4269, 2022.
- “Performance Analysis of Joint Active User Detection and Channel Estimation for Massive Connectivity,” (with Jia-Cheng Jiang and Hui-Ming Wang). *IEEE Transactions on Signal Processing*, Vol. 70, pp. 2647 - 3662, 2022.
- “Robust Group Anomaly Detection for Quasi-Periodic Time Series,” (with Kai Yang, Shaoyu Dou, Pan Luo and Xin Wang). *IEEE Transactions on Network Science and Engineering*, Vol. 9, No. 4, pp. 2833 - 2845, July - August 2022.
- “Opinion Evolution in Social Networks: Connecting Mean Field Games to Generative Adversarial Nets,” (with Hao Gao, Alex Lin, Reginald A. Banez, Wuchen Li, Zhu Han and Stanley Osher). *IEEE Transactions on Network Science and Engineering*, Vol. 9, No. 4, pp. 2734 - 2746, July - August 2022.
- “Wireless for Machine Learning: A Survey,” (with Henrik Hellström, José Mairton B. da Silva Jr., Mohammad Mohammadi Amiri, Mingzhe Chen, Viktoria Fodor and Carlo Fischione). *Foundations and Trends in Signal Processing*, Vol 15, No. 4, pp. 290 - 399, 2022. [Also published in monograph form by Now Publishers, Hanover, MA.]
- “Review and Perspectives of Micro/Nano Technologies as Key-Enablers of 6G,” (with Jacopo Iannacci). *IEEE Access*, Vol. 10, pp. 55428 - 55458, 2022.

- “Design of THz-NOMA in the Presence of Beam Misalignment,” (with Zhiguo Ding). *IEEE Communications Letters*, Vol. 26, No. 7, pp. 1678 - 1682, July 2022.
- “RIS-aided Zero-Forcing and Regularized Zero-Forcing Beamforming in Integrated Information and Energy Delivery,” (with Hongwen Yu, Hoang D. Tuan, Eryk Dutkiewicz and Lajos Hanzo). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 7, pp. 5500 - 5513, July 2022.
- “Hybrid NOMA Offloading in Multi-User MEC Networks,” (with Zhiguo Ding, Dongfang Xu and Robert Schober). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 7, pp. 5377 - 5391, July 2022.
- “Data-Driven Random Access Optimization in Multi-Cell IoT Networks Using NOMA,” (with Sami Khairy, Prasanna Balaprakash and Lin X. Cai). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 7, pp. 4938 - 4953, July 2022.
- “Short Blocklength Process Monitoring and Scheduling: Resolution and Data Freshness,” (with Stefan Roth, Ahmed Arafa and Aydin Sezgin). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 7, pp. 4669 - 4681, July 2022.
- “Holographic Integrated Sensing and Communication,” (with Haobo Zhang, Hongliang Zhang, Boya Di, Marco Di Renzo, Zhu Han and Lingyang Song). *IEEE Journal on Selected Areas in Communications - Issue on Integrated Sensing and Communication*, Vol. 40, No. 7, pp. 2114 - 2130, July 2022.
- “Self-adaptive Bat Algorithm with Genetic Operations,” (with Jing Bi, Haitao Yuan, Jiahui Zhai and MengChu Zhou). *IEEE/CAA Journal of Automatica Sinica*, Vol. 9, No. 7, pp. 1284 - 1294, July 2022.
- “Proximal Policy Optimization-based Transmit Beamforming and Phase-shift Design in an IRS-aided ISAC System for the THz Band,” (with Xiangnan Liu, Haijun Zhang, Keping Long, Mingyu Zhou and Yonghui Li). *IEEE Journal on Selected Areas in Communications - Issue on Integrated Sensing and Communication*, Vol. 40, No. 7, pp. 2056 - 2069, July 2022.
- “Throughput Enhancement in FD- and SWIPT-enabled IoT Networks over Non-Identical Rayleigh Fading Channels,” (with Tan N. Nguyen, Dinh-Hieu Tran, Van-Duc Phan, Miroslav Voznak, Symeon Chatzinotas and Björn Ottersten). *IEEE Internet of Things Journal*, Vol. 9, No. 12, pp. 10172 - 10186, June 15, 2022.
- “Entanglement-assisted Concatenated Quantum Codes,” (with Jihao Fan, Jun Li, Yongbin Zhou and Min-Hsiu Hsieh). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 119, No. 24, Article e2202235119, June 10, 2022.
- “6G for Vehicle-to-Everything (V2X) Communications: Enabling Technologies, Challenges, and Opportunities” (with Md. Noor-A-Rahim, Zilong Liu, Haeyoung Lee, Mohammad Omar Khyam, Jianhua He, Dirk Pesch, Klaus Moessner and Walid Saad). *Proceedings of the IEEE*, Vol. 110, No. 6, pp. 712 - 734, June 2022.
- “Deep Reinforcement Learning-Based Optimization for IRS-Assisted Cognitive Radio Systems,” (with Canwei Zhong, Miao Cui, Guangchi Zhang, Qingqing Wu, Xinrong Guan, and Xiaoli Chu). *IEEE Transactions on Communications*, Vol. 70, No. 6, pp. 3849 - 3864, June 2022.
- “Energy-efficient Velocity Control for Massive Numbers of UAVs: A Mean Field Game Approach,” (with Hao Gao, Wonjun Lee, Yuhan Kang, Wuchen Li, Zhu Han and Stanley Osher). *IEEE Transactions on Vehicular Technology*, Vol. 71, No. 6, pp. 6266 - 6278, June 2022.
- “Partial and Full Relay Selection Algorithms for AF Multi-Relay Full-Duplex Networks with Self-Energy Recycling in Non-identically Distributed Fading Channels,” (with Tan N. Nguyen, Tran Trung Duy, Phuong T. Tran, Miroslav Voznak and Xingwang Li). *IEEE Transactions on Vehicular Technology*, Vol. 71, No. 6, pp. 6173 - 6188, June 2022.
- “Data-Driven Detection and Identification of IoT-Enabled Load-Altering Attacks in Power Grids,” (with Subhash Lakshminarayana, Saurav Sthapit, Hamidreza Jahangir and Carsten Maple). *IET Smart Grid*, Vol. 5, No. 3, pp. 203 - 218, June 2022.
- “Joint Optimization for IRS and Trajectory for Supporting Statistical Delay and Error-Rate Bounded QoS Over mURLLC-Driven 6G Mobile Wireless Networks Using FBC,” (with Xi Zhang and Jingqing Wang). *IEEE Vehicular Technology Magazine - Special Issue on Backscatter and Reconfigurable Intelligent Surface Empowered Wireless Communications in 6G*, Vol. 17, No. 2, pp. 55 - 63, June 2022.

- “Simultaneously Transmitting and Reflecting Intelligent Omni-Surfaces: Modeling and Implementation,” (with Jiaqi Xu, Yuanwei Liu, Xidong Mu, Joey Tianyi Zhou, Lingyang Song and Lajos Hanzo). *IEEE Vehicular Technology Magazine - Special Issue on Backscatter and Reconfigurable Intelligent Surface Empowered Wireless Communications in 6G*, Vol. 17, No. 2, pp. 46 - 54, June 2022.
- “Benefits of Energy Recovery from Undesirable Components in Electric Signals in Electric Power Systems,” (with Moisés V. Ribeiro, Victor Fernandes, Henrique Luis M. Monteiro, Nathan Cravo and Edimar J. de Oliveira). *International Journal of Electrical Power and Energy Systems*, Vol. 138, Article 107323, June 2022.
- “Improving Investment Performance via Natural Language Processing Methods,” (with Di-Jia Su and John M. Mulvey). *The Journal of Financial Data Science*, Vol. 4, No. 2, pp. 37 - 49, Spring 2022
- “Federated Learning: A Signal Processing Perspective,” (with Tomer Gafni, Nir Shlezinger, Kobi Cohen and Yonina C. Eldar). *IEEE Signal Processing Magazine*, Vol. 39, No. 3, pp. 14 - 41, May 2022.
- “An Information-Theoretic View of Mixed-Delay Traffic in 5G and 6G,” (with Homa Nikbakht, Michèle Wigger, Malcolm Egan, Shlomo Shamai and Jean-Marie Gorce). *Entropy*, Vol. 24, No. 5, Article 637, May 2022.
- “Power-Efficient Passive Beamforming and Resource Allocation for IRS-Aided WPCNs,” (with Meng Hua and Qingqing Wu). *IEEE Transactions on Communications*, Vol. 70, No. 5, pp. 3250 - 3265, May 2022.
- “Age of Information in Energy Harvesting Aided Massive Multiple Access Networks,” (with Zhengru Fang, Jingjing Wang, Yong Ren, Zhu Han and Lajos Hanzo). *IEEE Journal on Selected Areas in Communications - Issue on Next Generation Multiple Access*, Vol. 40, No. 5, pp. 1441 -1456, May 2022.
- “Secure Transmission Design for Cooperative NOMA in the Presence of Internal Eavesdropping,” (with Binbin Su, Wenjuan Yu, Hongbo Liu, Jin Meng and Arsenia Chorti). *IEEE Wireless Communications Letters*, Vol. 11, No. 5, pp. 878 - 882, May 2022.
- “A Meta-Learning Approach to the Optimal Power Flow Problem Under Topology Reconfigurations,” (with Yexiang Chen, Subhash Lakshminarayana and Carsten Maple). *IEEE Open Access Journal of Power and Energy*, Vol. 9, pp. 109 - 120, 2022.
- “Modeling and Analysis of Opinion Dynamics in Social Networks Using Multiple-Population Mean Field Games,” (with Reginald A. Banez, Hao Gao, Lixin Li, Chungang Yang and Zhu Han). *IEEE Transactions on Signal and Information Processing over Networks*, Vol. 8, pp. 301 - 316, 2022.
- “Joint LED Selection and Precoding Optimization for Multiple-User Multiple-Cell VLC Systems,” (with Yang Yang, Yujie Yang, Mingzhe Chen, Hailun Xia and Shuguang Cui). *IEEE Internet of Things Journal*, Vol. 9, No. 8, pp. 6003 - 6017, April 15, 2022.
- “Active Sampling for the Quickest Detection of Markov Networks,” (with Javad Heydari and Ali Tajer). *IEEE Transactions on Information Theory*, Vol. 68, No. 4, pp. 2479 - 2508, April 2022.
- “Physical Layer Anonymous Precoding: The Path to Privacy-Preserving Communications,” (with Zhongxiang Wei, Christos Masouros, Athina Petropulu and Lajos Hanzo). *IEEE Wireless Communications*, Vol. 29, No. 2, pp. 154 - 160, April 2022.
- “Turing Meets Shannon: On the Algorithmic Construction of Channel-Aware Codes,” (with Holger Boche and Rafael F. Schaefer). *IEEE Transactions on Communications*, Vol. 70, No. 4, pp. 2256 - 2267, April 2022.
- “Non-Coherent Multi-level Index Modulation,” (with Ali Fazeli, Ha H. Nguyen and Hoang D. Tuan). *IEEE Transactions on Communications*, Vol. 70, No. 4, pp. 2240 - 2255, April 2022.
- “Spatiotemporal Analysis for Age of Information in Random Access Networks,” (with Howard H. Yang, Ahmed Arafa and Tony Q. S. Quek). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 4, pp. 2813 - 2829, April 2022.
- “Detection of Spatially Modulated Signals via RLS: Theoretical Bounds and Applications,” (with Ali Bereyhi, Saba Asaad, Bernhard Gäde and Ralf R. Müller). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 4, pp. 2291 - 2304, April 2022.
- “Massive Access of Static and Mobile Users via Reconfigurable Intelligent Surfaces: Protocol Design and Performance Analysis,” (with Xuelin Cao, Bo Yang, Chongwen Huang, George C. Alexandropoulos,

- Chau Yuen, Zhu Han and Lajos Hanzo). *IEEE Journal on Selected Areas in Communications - Issue on Next Generation Multiple Access*, Vol. 40, No. 4, pp. 1253 - 1269, April 2022.
- “Multi-Dimensional Multiple Access with Resource Utilization Cost Awareness for Individualized Service Provisioning in 6G,” (with Jie Mei, Wudan Han and Xianbin Wang). *IEEE Journal on Selected Areas in Communications - Issue on Next Generation Multiple Access*, Vol. 40, No. 4, pp. 1237 - 1252, April 2022.
- “Next-Generation Multiple Access Based on NOMA with Power Level Modulation,” (with Xinyue Pei, Yingyang Chen, Miaowen Wen, Hua Yu and Erdal Panayirci). *IEEE Journal on Selected Areas in Communications - Issue on Next Generation Multiple Access*, Vol. 40, No. 4, pp. 1072 - 1083, April 2022.
- “Distributed Reinforcement Learning for Age of Information Minimization in Real-Time IoT Systems,” (with Sihua Wang, Mingzhe Chen, Zhaohui Yang, Changchuan Yin, Walid Saad and Shuguang Cui). *IEEE Journal of Selected Topics in Signal Processing - Issue on Distributed Machine Learning for Wireless Communications*, Vol. 16, No. 3, pp. 501 - 515, April 2022.
- “Revisiting Analog Over-the-Air Machine Learning: The Blessing and Curse of Interference,” (with Howard H. Yang, Zihan Chen and Tony Q. S. Quek). *IEEE Journal on Selected Topics in Signal Processing - Issue on Distributed Machine Learning for Wireless Communications*, Vol. 16, No. 3, pp. 406 - 419, April 2022.
- “Low-to-Zero-Overhead IRS Reconfiguration: Decoupling Illumination and Channel Estimation,” (with Vahid Jamali, George C. Alexandropoulos and Robert Schober). *IEEE Communications Letters*, Vol. 26, No. 4, pp. 932 - 936, April 2022.
- “Nonconvex Low-Rank Tensor Completion from Noisy Data,” (with Changxiao Cai, Gen Li and Yuxin Chen). *Operations Research*, Vol. 70, No. 2, pp. 1219 - 1237, March-April 2022.
- “Secure Active and Passive Beamforming in IRS-Aided MIMO Systems,” (with Saba Asaad, Yifei Wu, Ali Bereyhi, Ralf R. Müller and Rafael F. Schaefer). *IEEE Transactions on Information Forensics and Security*, Vol. 17, pp. 1300 - 1315, 2022.
- “Bayesian Risk with Bregman Loss: A Cramér-Rao Type Bound and Linear Estimation,” (with Alex Dytso and Michael Fausß). *IEEE Transactions on Information Theory*, Vol. 68, No. 3, pp. 1985 - 2000, March 2022.
- “Enhanced User Grouping and Power Allocation for Hybrid mmWave MIMO-NOMA Systems,” (with Jinle Zhu, Qiang Li, Zilong Liu and Hongyang Chen). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 3, pp. 2034 - 2050, March 2022.
- “Reliable and Secure Short Packet Communications,” (with Chen Feng and Hui-Ming Wang). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 3, pp. 1913 - 1926, March 2022.
- “Convergence of Federated Learning over a Noisy Downlink,” (with Mohammad Mohammadi Amiri, Deniz Gündüz and Sanjeev R. Kulkarni). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 3, pp. 1422 - 1437, March 2022.
- “Context-Aware Security for 6G Wireless: The Role of Physical Layer Security,” (with Arsenia Chorti, André Noll Barreto, Stefan Köpsell, Marco Zoli, Marwa Chafii, Philippe Sehier and Gerhard Fettweis). *IEEE Communications Standards Magazine*, Vol. 6, No. 1, pp. 102 - 108, March 2022.
- “Timely Status Updating Over Erasure Channels Using an Energy Harvesting Sensor: Single and Multiple Sources,” (with Ahmed Arafa, Jing Yang and Sennur Ulukus). *IEEE Transactions on Green Communications and Networking - Special Issue on Communications and Computing for Green Industrial IoT and Smart Grids*, Vol. 6, No. 1, pp. 6 - 19, March 2022.
- “A Refined Consumer Behavior Model for Energy Systems: Application to the Pricing and Energy-efficiency Problems,” (with Chao Zhang, Samson Lasaulce, Li Wang and Lucas Saludjian). *Applied Energy*. Vol. 308, Article 118239, February 15, 2022.
- “Intelligent Omni-Surfaces for Full-Dimensional Communications: Principles, Technology, and Implementation,” (with Hongliang Zhang, Shuhao Zeng, Boya Di, Yunhua Tan, Marco Di Renzo, Mérouane Debbah, Lingyang Song and Zhu Han). *IEEE Communications Magazine - Feature Topic on Reconfigurable Intelligent Surfaces: Design and Implementation*, Vol. 60, No. 2, pp. 39 - 45, February 2022.

- “Hybrid Power Line/Wireless Systems: Power Allocation for Minimizing the Average Bit Error Probability,” (with Mateus de L. Filomeno, Marcello L. R. de Campos and Moisés V. Ribeiro). *IEEE Transactions on Communications*, Vol. 70, No. 2, pp. 810 - 821, February 2022.
- “Blockchain and 6G: The Future of Secure and Ubiquitous Communication,” (with Ali Hussain Khan, Naveed UL Hassan, Chau Yuen, Jun Zhao, Dusit Niyato and Yan Zhang). *IEEE Wireless Communications*, Vol. 29, No. 1, pp. 194 - 201, February 2022.
- “Age- and Correlation-Aware Information Gathering,” (with Ahmed A. Al-Habob and Octavia A. Dobre). *IEEE Wireless Communications Letters*, Vol. 11, No. 2, pp. 273 - 277, February 2022
- “Fault Detection and Location in Power Distribution Systems: The Usefulness of the HS-OFDM Scheme for Time-Domain Reflectometry,” (with Lucas Giroto de Oliveira, Mateus de Lima Filomeno and Moisés Vidal Ribeiro). *Electric Power Systems Research*, Vol. 203, Article 107600, February 2022.
- “Analysis of Typical PLC Pulses for Sensing High-Impedance Faults Based on Time-Domain Reflectometry,” (with Lucas Giroto de Oliveira, Mateus de L. Filomeno, Luiz Fernando Colla and Moisés V. Ribeiro). *International Journal of Electrical Power and Energy Systems*, Vol. 135, Article 107168, February 2022.
- “Fundamental Limitations on Efficiently Forecasting Certain Epidemic Measures in Network Models,” (with Daniel J. Rosenkrantz, Anil Vullikanti, S. S. Ravi, Richard E. Stearns, Simon A. Levin and Madhav V. Marathe). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 119, No. 4, Article e2109228119, January 25, 2022.
- “Statistical Modeling of Energy Harvesting in Hybrid PLC-WLC Channels,” (with Victor Fernandes, Thiago F. A. Nogueira and Moisés V. Ribeiro). *Sustainability - Special Issue on Energy Efficiency in Power Lines*, Vol. 14, No. 1, Article 442, 2022.
- “Federated Learning for 6G: Applications, Challenges, and Opportunities,” (with Zhaohui Yang, Mingzhe Chen, Kai-Kit Wong and Shuguang Cui). *Engineering - Special Issue on 6G Requirements, Vision and Enabling Technologies*, Vol. 8, No. 1, pp. 33 - 41, 2022.
- “Private 5G Networks: Concepts, Architectures, and Research Landscape,” (with Miaowen Wen, Qiang Li, Kyeong Jin Kim, David López-Pérez, Octavia A. Dobre, Petar Popovski and Theodoros A. Tsiftsis). *IEEE Journal on Selected Topics in Signal Processing - Issue on Advanced Signal Processing for Local and Private 5G Networks*, Vol. 16, No. 1, pp. 7 - 25, January 2022.
- “Joint User Grouping, Version Selection and Bandwidth Allocation for Live Video Multicasting,” (with Zhilong Zhang, Minyin Zeng, Mingzhe Chen, Danpu Liu, Walid Saad and Shuguang Cui). *IEEE Transactions on Communications*, Vol. 70, No. 1, pp. 350 - 365, January 2022.
- “Relay-Aided Multi-user OFDM Relying on Joint Wireless Power Transfer and Self-Interference Recycling,” (with Ali A. Nasir, Hoang D. Tuan, Eryk Dutkiewicz and Lajos Hanzo). *IEEE Transactions on Communications*, Vol. 70, No. 1, pp. 291 - 305, January 2022.
- “Ultra-Reliable and Low-Latency Wireless Communications in the High SNR Regime: A Cross-Layer Tradeoff,” (with Yalei Wang and Wei Chen). *IEEE Transactions on Communications*, Vol. 70, No. 1, pp. 149 - 162, January 2022.
- “Energy-Efficient Wireless Communications with Distributed Reconfigurable Intelligent Surfaces,” (with Zhaohui Yang, Mingzhe Chen, Walid Saad, Wei Xu, Mohammad Shikh-Bahaei and Shuguang Cui). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 1, pp. 665 - 679, January 2022.
- “Maximizing the Geometric Mean of User-Rates to Improve the Rate-Fairness: Proper vs. Improper Gaussian Signaling,” (with Hongwen Yu, Hoang D. Tuan, Eryk Dutkiewicz and Lajos Hanzo). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 1, pp. 295 - 309, January 2022.
- “Achievable Rate Analysis of Millimeter Wave Channels with Random Coding Error Exponent,” (with Shaocheng Huang and Ming Xiao). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 1, pp. 250 - 263, January 2022.
- “Intelligent Omni-Surfaces: Ubiquitous Wireless Transmission by Reflective-Refractive Metasurfaces,” (with Shuhang Zhang, Hongliang Zhang, Boya Di, Yunhua Tan, Marco Di Renzo, Zhu Han and Lingyang Song). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 1, pp. 219 - 233, January 2022.

- “A Multi-Cluster-Based Distributed CDD Scheme for Asynchronous Joint Transmissions in Local and Private Wireless Networks,” (with Kyeong Jin Kim, Phee Lep Yeoh, Hongwu Liu, Jianlin Guo, Philip V. Orlik and Yukimasa Nagai). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 1, pp. 80 - 94, January 2022.
- “Fundamentals of Physical Layer Anonymous Communications: Sender Detection and Anonymous Pre-coding,” (with Zhongxiang Wei, Fan Liu and Christos Masouros). *IEEE Transactions on Wireless Communications*, Vol. 21, No. 1, pp. 64 - 79, January 2022.
- “Low-Latency Federated Learning over Wireless Channels with Differential Privacy,” (with Kang Wei, Jun Li, Chuan Ma, Ming Ding, Cailian Chen, Shi Jin and Zhu Han). *IEEE Journal on Selected Areas in Communications - Series on Machine Learning in Communications and Networks*, Vol. 40, No. 1, pp. 290 - 307, January 2022.
- “6G Internet of Things: A Comprehensive Survey,” (with Dinh C. Nguyen, Ming Ding, Pubudu N. Pathirana, Aruna Seneviratne, Jun Li, Dusit Niyato and Octavia Dobre). *IEEE Internet of Things Journal*, Vol. 9, No. 1, pp. 359 - 383, January 1, 2022.
- “Federated Learning over Energy Harvesting Wireless Networks,” (with Rami Hamdi, Mingzhe Chen, Ahmed Ben Said and Marwa Qaraq). *IEEE Internet of Things Journal*, Vol. 9, No. 1, pp. 93 - 103, January 1, 2022.
- “Hybrid Chirp Signal Design for Long-Range (LoRa) Modulation,” (with Md. Noor-A-Rahim, M. Omar Khyam, Apel Mahmud, Xinde Li and Dirk Pesch). *Signals - Special Issue on Internet of Things for Smart Planet: Present and Future*, Vol. 3, No. 1, pp. 1 - 10, 2022.
- “A Novel Wireless Communication Paradigm for Intelligent Reflecting Surface Based Symbiotic Radio Systems,” (with Meng Hua, Qingqing Wu, Luxi Yang and Robert Schober). *IEEE Transactions on Signal Processing*, Vol. 70, pp. 550 - 565, December 15, 2021.
- “Federated Learning for Task and Resource Allocation in Wireless High Altitude Balloon Networks,” (with Sihua Wang, Mingzhe Chen, Changchuan Yin, Walid Saad, Choong Seon Hong and Shuguang Cui). *IEEE Internet of Things Journal*, Vol. 8, No. 24, pp. 17,449 - 17, 459, December 15, 2021.
- “Federated Learning with Unreliable Clients: Performance Analysis and Mechanism Design,” (with Chuan Ma, Jun Li, Ming Ding, Kang Wei and Wen Chen). *IEEE Internet of Things Journal*, Vol. 8, No. 24, pp. 17,308 - 17, 319, December 15, 2021.
- “Federated Learning for Industrial Internet of Things in Future Industries,” (with Dinh C. Nguyen, Ming Ding, Pubudu N. Pathirana, Aruna Seneviratne, Jun Li and Dusit Niyato). *IEEE Wireless Communications*, Vol. 28, No. 6, pp. 192 - 199, December 2021.
- “Reconfigurable Holographic Surfaces for Future Wireless Communications,” (with Ruoqi Deng, Boya Di, Hongliang Zhang, Dusit Niyato, Zhu Han and Lingyang Song). *IEEE Wireless Communications*, Vol. 28, No. 6, pp. 126 - 131, December 2021.
- “STAR: Simultaneous Transmission and Reflection for 360° Coverage by Intelligent Surfaces,” (with Yuanwei Liu, Xidong Mu, Jiaqi Xu, Robert Schober, Yang Hao and Lajos Hanzo). *IEEE Wireless Communications - Special Issue on Intelligent Surfaces for 5G and Beyond*, Vol. 28, No. 6, pp. 102 - 109, December 2021.
- “Age-Optimal Information Gathering in Linear Underwater Networks: A Deep Reinforcement Learning Approach,” (with Ahmed A. Al-Habob and Octavia A. Dobre). *IEEE Transactions on Vehicular Technology*, Vol. 70, No. 12, pp. 13,129 - 13,138, December 2021.
- “Distributed Learning in Wireless Networks: Recent Progress and Future Challenges,” (with Mingzhe Chen, Deniz Gündüz, Kaibin Huang, Walid Saad, Mehdi Bennis and Aneta Vulgarakis Feljan). *IEEE Journal on Selected Areas in Communications - Issue on Distributed Learning over Wireless Edge Networks*, Vol. 39, No. 12, pp. 3579 - 3605, December 2021.
- “Task Selection and Collision-Free Route Planning for Mobile Crowd Sensing Using Multi-Population Mean-Field Games,” (with Yuhan Kang, Siting Liu, Hongliang Zhang, Zhu Han and Stanley Osher). *IEEE Transactions on Green Communications and Networking*, Vol. 5, No. 4, pp. 1947 - 1960, December 2021.
- “Roles of Retailers in the Peer-to-Peer Electricity Market: A Single Retailer Perspective,” (with Wayes Tushar, Chau Yuen, Tapan Saha, Deb Chattopadhyay, Sohrab Nizami and Jan E. Alam). *iScience*, Vol. 24, No. 11, Article 103278, November 19, 2021.

- “On Covert Communication Against Sequential Change-Point Detection,” (with Ke-Wen Huang and Hui-Ming Wang). *IEEE Transactions on Information Theory*, Vol. 67, No. 7, pp. 7285 - 7303, November 2021.
- “Constrained Online Convex Optimization with Feedback Delays,” (with Xuanyu Cao and Junshan Zhang). *IEEE Transactions on Automatic Control*, Vol. 66, No. 11, pp. 5049 - 5064, November 2021.
- “Moving-Target Defense for Detecting Coordinated Cyber-Physical Attacks in Power Grids via Game Theory,” (with Subhash Lakshminarayana and E. Veronica Belmega). *IEEE Transactions on Smart Grid*, Vol. 12, No. 6, pp. 5244 - 5257, November 2021. [Chosen in 2023 as one of the top 5 papers published in the *IEEE Transactions on Smart Grid* over the previous three years.]
- “Age of Information Minimization for Grant-Free Non-orthogonal Massive Access with Short Packets,” (with Hongliang Zhang, Yuhan Kang, Lingyang Song and Zhu Han). *IEEE Transactions on Communications*, Vol. 69, No. 11, pp. 7806 - 7820, November 2021.
- “A New QoS-Guarantee Strategy for NOMA Assisted Semi-Grant-Free Transmission,” (with Zhiguo Ding and Robert Schober). *IEEE Transactions on Communications*, Vol. 69, No. 11, pp. 7489 - 7503, November 2021.
- “Present and Future of Reconfigurable Intelligent Surface-Empowered Communications,” (with Ertuğrul Başar). *IEEE Signal Processing Magazine*, Vol. 36, No. 6, pp. 146 - 152, November 2021.
- “Wireless Network Optimization for Federated Learning with Model Compression in Hybrid VLC/RF Systems,” (with Wuwei Huang, Yang Yang, Mingzhe Chen and Chunyan Feng). *Entropy - Special Issue on Machine Learning for Communications*, Vol. 23, No. 11, Article 1413, November 2021.
- “A Novel Framework for the Analysis and Design of Heterogeneous Federated Learning,” (with Jianyu Wang, Qinghua Liu and Gauri Joshi). *IEEE Transactions on Signal Processing*, Vol. 69, pp. 5234 - 5249, 2021.
- “MPC-based UAV Navigation for Simultaneous Solar-energy Harvesting and Two-way Communications,” (with Ali A. Nasir, Hoang D. Tuan and Andrey V. Savkin). *IEEE Journal on Selected Areas in Communications - Issue on UAV Communications in 5G and Beyond Networks*, Vol. 39, No. 11, pp. 3459 - 3474, November 2021.
- “AoI-Driven Statistical Delay and Error-Rate Bounded QoS Provisioning for mURLLC Over UAV-Multimedia 6G Mobile Networks Using FBCs,” (with Xi Zhang and Jingqing Wang). *IEEE Journal on Selected Areas in Communications - Issue on UAV Communications in 5G and Beyond Networks*, Vol. 39, No. 11, pp. 3425 - 3443, November 2021.
- “5G-Enabled UAV-to-Community Offloading: Joint Trajectory Design and Task Scheduling,” (with Peiran Dong, Zhaolong Ning, Miaowen Wen, Xiaojie Wang, Lei Guo and Ricky Y. K. Kwok) *IEEE Journal on Selected Areas in Communications - Issue on UAV Communications in 5G and Beyond Networks*, Vol. 39, No. 11, pp. 3306 - 3320, November 2021.
- “Modeling COVID-19 with Mean Field Evolutionary Dynamics: Social Distancing and Seasonality,” (with Hao Gao, Wuchen Li and Zhu Han). *Journal of Communications and Networks - Special Issue on Communications and Networking Approaches to Combatting COVID-19*, Vol. 23, No. 5, pp. 314 - 325, October 2021.
- “Diffusion Bayesian Subband Adaptive Filters for Distributed Estimation Over Sensor Networks,” (with Fuyi Huang, Jiashu Zhang, Sheng Zhang and Hongyang Chen). *IEEE Transactions on Communications*, Vol. 69, No. 10, pp. 6909 - 6925, October 2021.
- “Achieving Extremely Low-Latency in Industrial Internet of Things: Joint Finite Blocklength Coding, Resource Block Matching, and Performance Analysis,” (with Xiaoyu Zhao and Wei Chen). *IEEE Transactions on Communications*, Vol. 69, No. 10, pp. 6529 - 6544, October 2021.
- “Sample, Quantize and Encode: Timely Estimation Over Noisy Channels,” (with Ahmed Arafa, Karim Banawan and Karim G. Seddik). *IEEE Transactions on Communications*, Vol. 69, No. 10, pp. 6485 - 6499, October 2021.
- “Intelligent Reflecting Surface Enhanced Multi-UAV NOMA Network,” (with Xidong Mu, Yuanwei Liu, Li Guo and Jiaru Lin). *IEEE Journal on Selected Areas in Communications - Issue on UAV Communications in 5G and Beyond Networks*, Vol. 29, No. 10, pp. 3051 - 3066, October 2021.

- “Distributed Multi-agent Meta Learning for Trajectory Design in Wireless Drone Networks, (with Ye Hu, Mingzhe Chen, Walid Saad and Shuguang Cui). *IEEE Journal on Selected Areas in Communications - Issue on UAV Communications in 5G and Beyond Networks*, Vol. 29, No. 10, pp. 3177 - 3192, October 2021.
- “AI-Driven UAV-NOMA-MEC in Next Generation Wireless Networks,” (with Zhong Yang, Mingzhe Chen, Xiao Liu, Yuanwei Liu, Yue Chen and Shuguang Cui). *IEEE Wireless Communications - Special Issue on Aerial Computing: Drones for Multi-Access Edge Computing*, Vol. 28, No. 5, pp. 66 - 73, October 2021.
- “Advantages of NOMA for Multi-User BackCom Networks,” (with Zhiguo Ding). *IEEE Communications Letters*, Vol. 25, No. 10, pp. 3408 - 3412, October 2021.
- “Robotic Communications for 5G and Beyond: Challenges and Research Opportunities,” (with Yuanwei Liu, Xiao Liu, Xinyu Gao, Xidong Mu, Xiangwei Zhou and Octavia Dobre). *IEEE Communications Magazine*, Vol. 59, No. 10, pp. 92 - 98, October 2021.
- “Intelligent Reflecting Surface-Assisted Free-Space Optical Communications,” (with Vahid Jamali, Hedieh Ajam, Marzieh Najafi, Bernhard Schmauss and Robert Schober). *IEEE Communications Magazine*, Vol. 59, No. 10, pp. 57 - 63, October 2021.
- “Federated Learning for Internet of Things: A Comprehensive Survey,” (with Dinh C. Nguyen, Ming Ding, Pubudu N. Pathirana and Aruna Seneviratne). *IEEE Communications Surveys & Tutorials*, Vol. 23, No. 3, pp. 1622 - 1658, Third Quarter 2021.
- “No-Pain No-Gain: DRL Assisted Optimization in Energy-Constrained CR-NOMA Networks,” (with Zhiguo Ding and Robert Schober). *IEEE Transactions on Communications*, Vol. 69, No. 9, pp. 5917 - 5932, September 2021.
- “Caching Transient Content for IoT Sensing: Multi-Agent Soft Actor-Critic,” (with Xiongwei Wu, Xihua Li, Jun Li, P. C. Ching and Victor C. M. Leung). *IEEE Transactions on Communications*, Vol. 69, No. 9, pp. 5886 - 5901, September 2021.
- “Securing Massive MIMO Systems: Secrecy for Free with Low-Complexity Architectures,” (with Ali Berekhi, Saba Asaad, Ralf R. Müller, Rafael F. Schaefer and Georg Fischer). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 9, pp. 5831 - 5845, September 2021.
- “Cell-Free Massive MIMO in the Short Blocklength Regime for URLLC,” (with Ali A. Nasir, Hoang D. Tuan, H. Q. Ngo and Trung Q. Duong). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 9, pp. 5861 - 5871, September 2021.
- “A Multi-Jammer Power Control Game,” (with Andrey GarnaeV, Athina Petropulu and Wade Trappe). *IEEE Communications Letters*, Vol. 25, No. 9, pp. 3031 - 3035, September 2021.
- “Role Assignment for Spatially-Correlated Data Aggregation Using Multi-Sink Internet of Underwater Things,” (with Ali Ahmed A-Habob and Octavia Dobre). *IEEE Transactions on Green Communications and Networking*, Vol. 5, No. 3, pp. 1570 - 1579, September 2021.
- “Decision-making Oriented Clustering: Application to Pricing and Power Consumption Scheduling,” (with Chao Zhang, Samson Lasaulce, Martin Hennebel, Lucas Saludjian and Patrick Panciatici). *Applied Energy*, Vol. 297, Article 117106, September 1, 2021.
- *“Wireless Caching: Making Radio Access Networks More Than Bit-Pipelines,” (with Wei Chen). *Network*, Vol. 1, pp. 146 - 164, 2021.
- “Federated Learning Meets Blockchain in Edge Computing: Opportunities and Challenges,” (with Dinh C. Nguyen, Ming Ding, Quoc-Viet Pham, Pubudu N. Pathirana, Long Bao Le, Aruna Seneviratne, Jun Li and Dusit Niyato). *IEEE Internet of Things Journal*, Vol. 8, No. 16, pp. 12,806 - 12,825, August 15, 2021.
- “Differentially Private ADMM for Regularized Consensus Optimization,” (with Xuanyu Cao, Junshan Zhang and Zhi Tian). *IEEE Transactions on Automatic Control*, Vol. 66, No. 8, pp. 3718 - 3725, August 2021.
- “Multi-Agent Reinforcement Learning for Cooperative Coded Caching via Homotopy Optimization,” (with Xiongwei Wu, Jun Li, Ming Xiao and P. C. Ching). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 8, pp. 5258 - 5272, August 2021.

- “Improper Gaussian Signaling for D2D Communication Coexisting MISO Cellular Networks,” (with Huy T. Nguyen, Hoang Duong Tuan, Dusit Niyato, and Dong In Kim). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 8, pp. 5186 - 5198, August 2021.
- “Blind Federated Edge Learning,” (with Mohammad Mohammadi Amiri, Tolga M. Duman, Deniz Gündüz and Sanjeev R. Kulkarni). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 8, pp. 5129 - 5143, August 2021.
- “On the Application of BAC-NOMA to 6G umMTC,” (with Zhiguo Ding). *IEEE Communications Letters*, Vol. 25, No. 8, pp. 2678 - 2682, August 2021.
- “An Efficient Specific Emitter Identification Method Based on Complex-valued Neural Networks and Network Compression,” (with Yu Wang, Guan Gui, Tomoaki Ohtsuki, Haris Gacanin and Octavia A. Dobre). *IEEE Journal on Selected Areas in Communications - Series on Machine Learning in Communications and Networks*, Vol. 38, No. 8, pp. 2305 - 2317, August 2021.
- “Statistical Delay and Error-Rate Bounded QoS Provisioning for SWIPT Over CF-M-MIMO 6G Wireless Networks Using FBC,” (with Xi Zhang and Jingqing Wang). *IEEE Journal of Selected Topics in Signal Processing - Issue on Signal Processing Advances in Wireless Transmission of Information and Power*, Vol. 15, No. 5, pp. 1272 - 1287, August 2021.
- “Shallow Reinforcement Learning for Energy Harvesting Communications with Imperfect Channel Knowledge,” (with Heasung Kim, Jungwoo Lee and Wonjae Shin). *IEEE Journal of Selected Topics in Signal Processing - Issue on Signal Processing Advances in Wireless Transmission of Information and Power*, Vol. 15, No. 5, pp. 1258 - 1271, August 2021.
- “Protecting Physical Layer Secret Key Generation from Active Attacks,” (with Miroslav Mitev, Arsenia Chorti and E. Veronica Belmega). *Entropy - Special Issue on Physical-Layer Security, Quantum Key Distribution and Post-quantum Cryptography*, Vol. 23, No. 8, Article 960, August 2021.
- “Physical Layer Security Aided Wireless Interference Networks in the Presence of Strong Eavesdropper Channels,” (with Zhichao Sheng, Hoang D. Tuan, Ali A. Nasir and Eryk Dutkiewicz). *IEEE Transactions on Information Forensics and Security*, Vol. 16, pp. 3228 - 3240, 2021.
- “Spatial Constellation Design Based Generalized Space Shift Keying for Physical Layer Security of Multi-User MIMO Communication Systems,” (with Nuğman Su, Erdal Panayirci and Mutlu Koca). *IEEE Wireless Communications Letters*, Vol. 10, No. 8, pp. 1785 - 1789, August 2021.
- “Risk Optimization for Revenue-Driven Wireless Video Broadcasting Systems: A Copula-based Framework,” (with Wen Ji). *IEEE Transactions on Multimedia*, Vol. 23, pp. 1757 - 1771, 2021.
- “SDN-enabled Efficient Routing Optimization Framework for Industrial Internet of Things,” (with Faisal Naeem, Zhenyu Zhou and Muhammad Tariq). *IEEE Transactions on Industrial Informatics*, Vol. 17, No. 8, pp. 5660 - 5667, August 2021.
- “Indoor Localization using Data Augmentation via Selective Generative Adversarial Networks,” (with Wafa Njima, Marwa Chafii, Arsenia Chorti and Raed M. Shubair). *IEEE Access*, Vol. 9, pp. 98,337 - 98,347, 2021.
- “Learning Mixtures of Low-Rank Models,” (with Yanxi Chen, Cong Ma and Yuxin Chen). *IEEE Transactions on Information Theory*, Vol. 27, No. 7, pp. 4613 - 4636, July 2021.
- “Learning to Decode Protograph LDPC Codes,” (with Jincheng Dai, Kailin Tan, Zhongwei Si, Kai Niu, Mingzhe Chen, and Shuguang Cui). *IEEE Journal on Selected Areas in Communications - Series on Machine Learning in Communications and Networks*, Vol. 39, No. 7, pp. 1983 - 1999, July 2021.
- “Low-Latency Short-Packet Transmission over a Large Spatial Scale,” (with Lei Huang, Xiaoyu Zhao and Wei Chen). *Entropy - Special Issue on Short Packet Communications: Design, Theory and Practice*, Vol. 23, No. 7, Article 916, July 2021.
- “NOMA for Next-Generation Massive IoT: Performance Potential and Technology Directions,” (with Yifei Yuan, Sen Wang, Yongpeng Wu, Zhiguo Ding, Lajos Hanzo and Xiaohu You). *IEEE Communications Magazine*, Vol. 59, No. 7, pp. 115 - 121, July 2021.
- “Reconfigurable Intelligent Surface Assisted MIMO Symbiotic Radio Networks,” (with Qianqian Zhang and Ying-Chang Liang). *IEEE Transactions on Communications*, Vol. 69, No. 7, pp. 4832 - 4846, July 2021.

- “UAV-to-Device Underlay Communications: Age of Information Minimization by Multi-agent Deep Reinforcement Learning,” (with Fanyi Wu, Hongliang Zhang, Jianjun Wu, Lingyang Song and Zhu Han). *IEEE Transactions on Communications*, Vol. 69, No. 7, pp. 4461 - 4475, July 2021.
- “Sum-Throughput Maximization in NOMA-Based WPCN: A Cluster-Specific Beamforming Approach,” (with Dongyeong Song, Wonjae Shin and Jungwoo Lee). *IEEE Internet of Things Journal*, Vol. 8, No. 13, pp. 10,543 - 10,556, July 1, 2021.
- “On the Algorithmic Solvability of Channel Dependent Classification Problems in Communication Systems,” (with Holger Boche and Rafael F. Schaefer). *IEEE/ACM Transactions on Networking*, Vol. 29, No. 3, pp. 1155 - 1168, June 2021.
- “Downlink and Uplink Intelligent Reflecting Surface Aided Networks: NOMA and OMA,” (with Yanyu Cheng, Kwok Hung Li, Yuanwei Liu and Kah Chan Teh). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 6, pp. 3988 - 4000, June 2021.
- “Convergence of Update Aware Device Scheduling for Federated Learning at the Wireless Edge,” (with Mohammad Mohammadi Amiri, Deniz Gündüz and Sanjeev R. Kulkarni). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 6, pp. 3643 - 3658, June 2021.
- “Reconfigurable Intelligent Surfaces in 6G: Reflective, Transmissive, or Both?” (with Shuhao Zeng, Hongliang Zhang, Boya Di, Yunhua Tan, Zhu Han and Lingyang Song). *IEEE Communications Letters*, Vol. 25, No. 6, pp. 2063 - 2067, June 2021.
- “Power Efficiency, Overhead, and Complexity Tradeoff in IRS Codebook Design - Quadratic Phase-Shift Profile,” (with Vahid Jamali, Marzieh Najafi and Robert Schober). *IEEE Communications Letters*, Vol. 25, No. 6, pp. 2048 - 2052, June 2021.
- “Optimizing Information Freshness in Wireless Networks: A Stochastic Geometry Approach,” (with Howard H. Yang, Ahmed Arafa and Tony Q. S. Quek). *IEEE Transactions on Mobile Computing*, Vol. 20, No. 6, pp. 2269 - 2280, June 2021.
- “Optimal Resource Allocations for Statistical QoS Provisioning to Support mURLLC Over FBC-EH-Based 6G THz Wireless Nano-Networks,” (with Xi Zhang and Jingqing Wang). *IEEE Journal on Selected Areas in Communications - Issue on TeraHertz Communications and Networking*, Vol. 39, No. 6, pp. 1544 - 1560, June 2021.
- “Model Predictive Control for On-Off Charging of Electrical Vehicles in Smart Grids,” (with Ye Shi, Hoang D. Tuan, Trung Q. Duong and Andrei V. Savkin). *IET Electrical Systems in Transportation*, Vol. 11, No. 2, pp. 121 - 133, June 2021.
- “AI-Assisted MAC for Reconfigurable Intelligent Surface-Aided Wireless Networks: Challenges and Opportunities,” (with Xuelin Cao, Bo Yang, Chongwen Huang, Chau Yuen, Marco Di Renzo, Zhu Han, Dusit Niyato and Lajos Hanzo). *IEEE Communications Magazine - Special Issue on Reconfigurable Intelligent Surfaces: Design and Implementation*, Vol. 59, No. 6, pp. 21 - 27, June 2021.
- “Backscatter-Assisted Data Offloading in OFDMA-Based Wireless-Powered Mobile Edge Computing for IoT Networks,” (with Phu X. Nguyen, Dinh-Hieu Tran, Oluwakayode Onireti, Phyl Tran Tin, Sang Quqng Nguyen and Symeon Chatzinotas). *IEEE Internet of Things Journal*, Vol. 8, No. 11, pp. 9233 - 9243, June 1, 2021.
- “Modeling and Analysis of the Spread of COVID-19 under a Multiple-strain Model with Mutations,” (with Osman Yağan, Anirudh Sridhar, Rashad Eletreby, Simon A. Levin and Joshua B. Plotkin). *Harvard Data Science Review*, 2021. Online at <https://doi.org/10.1162/99608f92.a11bf693>
- “Minimax Robust Detection: Classic Results and Recent Advances,” (with Michael Fauß and Abdelhak M. Zoubir). *IEEE Transactions on Signal Processing*, Vol. 69, pp. 2252 - 2283, 2021.
- “Finite-Sample Bounds on the Accuracy of Plug-In Estimators of Fisher Information,” (with Wei Cao, Alex Dytso and Michael Fauß). *Entropy*, Vol. 23, No. 5, Article 545, May 2021. [open access]
- “Topological Clustering of Multilayer Networks,” (with Monisha Yuvaraj, Asim K. Dey, Vyacheslav Lyubchich and Yulia R. Gel). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 118, No. 21, Article e2019994118, May 25, 2021.
- “Joint Sensing Task Assignment and Collision-Free Trajectory Optimization for Mobile Vehicle Networks Using Mean-Field Games,” (with Yuhan Kang, Siting Liu, Hongliang Zhang, Wuchen Li, Zhu Han

- and Stanley Osher). *IEEE Internet of Things Journal*, Vol 8, No. 10, pp. 8488 - 8503, May 15, 2021.
- “Pricing Fresh Data,” (with Meng Zhang, Ahmed Arafa and Jianwei Huang). *IEEE Journal on Selected Areas in Communications - Issue on Age of Information in Real-Time Systems and Networks*, Vol. 39, No. 5, pp. 1211 - 1225, May 2021.
- “Reconfigurable Intelligent Surface Assisted Device-to-Device Communications,” (with Yali Chen, Bo Ai, Hongliang Zhang, Yong Niu, Lingyang Song and Zhu Han). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 5, pp. 2792 - 2804, May 2021.
- “Reconfigurable Intelligent Surface Assisted Multi-user Communications: How Many Reflective Elements Do We Need?” (with Hongliang Zhang, Boya Di, Marco Di Renzo, Zhu Han and Lingyang Song). *IEEE Wireless Communications Letters*, Vol. 10, No. 5, pp. 1098 - 1102, May 2021.
- “Distributed Model Predictive Control for Joint Coordination of Demand Response and Optimal Power Flow with Renewables in Smart Grid,” (with Ye Shi, Hoang D. Tuan, Andrey V. Savkin, Chin-Teng Lin and Jian Guo Zhu). *Applied Energy*, Vol. 290, Article 116701, May 15, 2021.
- “A Multi-link Communication Connectivity Game under Hostile Interference,” (with Andrey Garnaev, Wade Trappe and Narayan B. Mandayam). *ITU Journal of Future and Evolving Technologies*, Vol. 2, No. 1, Article 8, 2021.
- “A Variational Interpretation of the Cramér-Rao Bound, (with Michael Fauß and Alex Dytso). *Signal Processing*, Vol. 182, Article 107917, May 2021.
- “Communication Efficient Federated Learning,” (with Mingzhe Chen, Nir Shlezinger, Yonina C. Eldar and Shuguang Cui). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 118, No. 17, Article e2017318118, April 27, 2021.
- “Subspace Estimation from Unbalanced and Incomplete Data Matrices: $\ell_{2,\infty}$ Statistical Guarantees,” (with Changxiao Cai, Gen Li, Yuejie Chi and Yuxin Chen). *Annals of Statistics*, Vol. 49, No. 2, 944 - 967, April 2021.
- “Online Stochastic Optimization with Time-Varying Distributions,” (with Xuanyu Cao and Junshan Zhang). *IEEE Transactions on Automatic Control*, Vol. 66, No. 4, pp. 1840 - 1847, April 2021.
- “Physics-based Modeling and Scalable Optimization of Large Intelligent Reflecting Surfaces,” (with Marzieh Najafi, Vahid Jamali and Robert Schober). *IEEE Transactions on Communications*, Vol. 69, No. 4, pp. 2673 - 2691, April 2021.
- “Physical-Layer Security for Multi-User MIMO Visible Light Communication Systems with Generalized Space Shift Keying,” (with Nuğman Su, Erdal Panayirci, Mutlu Koca, Anil Yesilkaya and Harald Haas). *IEEE Transactions on Communications*, Vol. 69, No. 4, pp. 2585 - 2598, April 2021.
- “Qualitative HD Image and Video Recovery via High-Order Tensor Augmentation and Completion,” (with P. M. Hoang, Hoang D. Tuan, T. T. Son and M. N. Do). *IEEE Journal of Selected Topics in Signal Processing - Issue on Deep Learning for Image/Video Restoration and Compression*, Vol. 15, No. 3, pp. 688 - 701, April 2021.
- “RIS Enhanced Massive Non-orthogonal Multiple Access Networks: Joint Deployment and Passive Beamforming Design,” (with Xiao Liu, Yuanwei Liu and Yue Chen). *IEEE Journal on Selected Areas in Communications - Issue on Massive Access for 5G and Beyond*, Vol. 39, No. 4, pp. 1057 - 1071, April 2021.
- “Optimized Shallow Neural Networks for Sum-Rate Maximization in Energy Harvesting Downlink Multiuser NOMA Systems,” (with Heasung Kim, Taehyun Cho, Wonjae Shin and Jungwoo Lee). *IEEE Journal on Selected Areas in Communications - Issue on Massive Access for 5G and Beyond*, Vol. 39, No. 4, pp. 982 - 997, April 2021.
- “Convergence Time Optimization for Federated Learning over Wireless Networks,” (with Mingzhe Chen, Walid Saad and Shuguang Cui). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 4, pp. 2457 - 2471, April 2021.
- “On Performance Comparison of Multi-Antenna HD-NOMA, SCMA and PD-NOMA Schemes,” (with Animesh Yadav, Chen Quan and Pramod K. Varshney). *IEEE Wireless Communications Letters*, Vol. 10, No. 4, pp. 715 - 719, April 2021.

- “Vulnerability Assessment of 6G Enabled Smart Grids,” (with Muhammad Tariq, Mansoor Ali and Faisal Naeem). *IEEE Internet of Things Journal - Special Issue on Enabling Massive IoT with 6G: Applications, Architectures, Challenges and Research Directions*, Vol. 8, No. 7, pp. 5468 - 5475, April 1, 2021.
- “Coded Stochastic ADMM for Decentralized Consensus Optimization with Edge Computing,” (with Hao Chen, Yu Ye, Ming Xiao and Mikael Skoglund). *IEEE Internet of Things Journal - Special Issue on Enabling Massive IoT with 6G: Applications, Architectures, Challenges and Research Directions*, Vol. 8, No. 7, pp. 5360 - 5373, April 1, 2021.
- “Deep-Reinforcement-Learning Based User Profile Perturbation for Privacy Aware Recommendation,” (with Yilin Xiao, Liang Xiao, Hailu Zhang and Shui Yu). *IEEE Internet of Things Journal*, Vol. 8, No. 6, pp. 4560 - 4568, March 15, 2021.
- “A Bayesian Approach to Sequential Change Detection and Isolation Problems,” (with Jie Chen and Wenyi Zhang). *IEEE Transactions on Information Theory*, Vol. 67, No. 3, pp. 1796 - 1803, March 2021.
- “A Compression Perspective on Secrecy Measures,” (with Yanina Y. Shkel). *IEEE Journal on Selected Areas in Information Theory - Issue on Privacy and Security of Information Systems*, Vol. 2, No. 1, pp. 163 - 176, March 2021.
- “An Overview of Information-Theoretic Security and Privacy: Metrics, Limits and Applications,” (with Matthieu Bloch, Onur Günlü, Aylin Yener, Frédérique Oggier, Lalitha Sankar and Rafael F. Schaefer). *IEEE Journal on Selected Areas in Information Theory - Issue on Privacy and Security of Information Systems*, Vol. 2, No. 1, pp. 5 - 22, March 2021.
- “A Tutorial on Ultrareliable and Low-Latency Communications in 6G: Integrating Domain Knowledge into Deep Learning,” (with Changyang She, Chengjian Sun, Zhouyou Gu, Yonghui Li, Chenyang Yang and Branka Vucetic). *Proceedings of the IEEE*, Vol. 109, No. 3, pp. 204 - 246, March 2021.
- “On Privacy of Dynamical Systems: An Optimal Probabilistic Mapping Approach,” (with Carlos Murguia, Iman Shames, Farhad Farokhi, and Dragan Nešić). *IEEE Transactions on Information Forensics and Security*, Vol. 16, pp. 2608 - 2620, 2021.
- “On the Effective Throughput of Coded Caching with Heterogeneous User Preferences: A Game Theoretic Perspective,” (with Yawei Lu, Changkun Li, and Wei Chen). *IEEE Transactions on Communications*, Vol. 69, No. 3, pp. 1387 - 1402, March 2021.
- “A Compressive Sensing Approach for Federated Learning over Massive MIMO Communication Systems,” (with Yo-Seb Jeon, Mohammad Mohammadi Amiri and Jun Li). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 3, pp. 1990 - 2004, March 2021.
- “Bayesian Topology Learning and Noise Removal from Network Data,” (with Mahmoud Ramezani-Mayiami, Mohammad Hajimirsadeghi, Karl Skretting, Xiaowen Dong and Rick S. Blum). *Discover Internet of Things*, Vol. 1, No. 1, Article 11, 2021.
- “Intelligent Reflecting Surface Assisted Anti-Jamming Communications: A Fast Reinforcement Learning Approach,” (with Helin Yang, Zehui Xiong, Jun Zhao, Dusit Niyato, Qingqing Wu and Massimo Tornatore). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 3, pp. 1963 - 1974, March 2021.
- “A Multi-Leader Multi-Follower Game-Based Analysis for Incentive Mechanisms in Socially-Aware Mobile Crowdsensing,” (with Jiangtian Nie, Jun Luo, Zehui Xiong, Dusit Niyato and Ping Wang). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 3, pp. 1457 - 1471, March 2021.
- “Statistical Delay and Error-Rate Bounded QoS Provisioning for mURLLC Over 6G CF M-MIMO Mobile Networks in the Finite Blocklength Regime,” (with Xi Zhang and Jinqin Wang). *IEEE Journal on Selected Areas in Communications - Issue on Massive Access for 5G and Beyond*, Vol. 39, No. 6, pp. 652 - 667, March 2021.
- “Decentralized Beamforming Design for Intelligent Reflecting Surface-Enhanced Cell-free Networks,” (with Shaocheng Huang, Yu Ye, Ming Xiao and Mikael Skoglund). *IEEE Wireless Communications Letters*, Vol. 10, No. 3, pp. 673 - 677, March 2021.
- “Physical Layer Security of In-Home PLC Systems: Analysis Based on a Measurement Campaign,” (with Andrei Camponogara and Moisés Vidal Ribeiro). *IEEE Systems Journal*, Vol. 15, No. 1, pp. 617 - 628, March 2021.

- “Enabling AI in Future Wireless Networks: A Data Life Cycle Perspective,” (with Dinh C. Nguyen, Peng Cheng, Ming Ding, David Lopez-Perez, Pubudu N. Pathirana, Jun Li and Aruna Seneviratne). *IEEE Communications Surveys & Tutorials*, Vol. 23, No. 1, pp. 553 - 595, First Quarter 2021.
- “DC Arc-Fault Detection Based on Empirical Mode Decomposition of Arc Signatures and Support Vector Machine,” (with Wenchao Miao, Qi Xu, K. H. Lam and Philip W. T. Pong). *IEEE Sensors Journal*, Vol. 21, No. 5, pp. 7024 - 7033, March 1, 2021.
- “Secrecy by Design with Applications to Privacy and Compression,” (with Yanina Y. Shkel and Rick S. Blum). *IEEE Transactions on Information Theory*, Vol. 67, No. 2, pp. 824 - 843, February 2021.
- “Energy-Efficient Multi-cell Massive MIMO Subject to Minimum User-Rate Constraints,” (with Long D. Nguyen, Hoang D. Tuan, Trung Q. Duong and Lajos Hanzo). *IEEE Transactions on Communications*, Vol. 69, No. 2, pp. 914 - 928, February 2021.
- “Experienced Deep Reinforcement Learning with Generative Adversarial Networks (GANs) for Model-Free Ultra Reliable Low Latency Communication,” (with Ali Taleb Zadeh Kasgari, Walid Saad and Mohammad Mozaffari). *IEEE Transactions on Communications*, Vol. 69, No. 2, pp. 884 - 899, February 2021.
- “Resource Allocation and Beamforming Design in the Short Blocklength Regime for URLLC,” (with Ali A. Nasir, Hoang D. Tuan, Ha H. Nguyen and Trung Q. Duong). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 2, pp. 1321 - 1335, February 2021.
- “A dCDD-Based Transmit Diversity Scheme for Downlink Pseudo-NOMA Systems,” (with Kyeong Jin Kim, Hongwu Liu, Hongjiang Lei, Zhiguo Ding and Philip V. Orlik). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 2, pp. 1217 - 1232, February 2021.
- “Optimum Combiner for Spatially Correlated Nakagami- m Fading Channels,” (with Jia-Chin Lin). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 2, pp. 771 - 284, February 2021.
- “Channel Estimation and Equalization for Alamouti SF-Coded OFDM-Based UWA Communication with Delay Focusing,” (with Erdal Panayirci and Mhd. Tahssin Altabbaa). *IEEE Transactions on Vehicular Technology*, Vol. 70, No. 2, pp. 1709 - 1723, February 2021.
- “Toward Optimal Adversarial Policies in the Multiplicative Learning System with a Malicious Expert,” (with Seyed Rasoul Etesami and Negar Kiyavash). *IEEE Transactions on Information Forensics and Security*, Vol. 16, pp. 2276 - 2287, 2021.
- “Matrix-Monotonic Optimization - Part I: Single-Variate Optimization,” (with Chengwen Xing, Shuai Wang, Sheng Chen, Shaodan Ma and Lajos Hanzo). *IEEE Transactions on Signal Processing*, Vol. 69, pp. 738 - 754, 2021.
- “Matrix-Monotonic Optimization - Part II: Multi-Variate Optimization,” (with Chengwen Xing, Shuai Wang, Sheng Chen, Shaodan Ma and Lajos Hanzo). *IEEE Transactions on Signal Processing*, Vol. 69, pp. 179 - 194, 2021.
- “Cyber-Enabled Grids: Shaping Future Energy Systems,” (with Philip W. T. Pong, Anuradha Annaswamy, Ben Kroposki, Yingchen Zhang, Ram Rajagopal and Gil Zussman). *Advances in Applied Energy*, Vol. 1, Article No. 100003, February 23, 2021.
- “UVeQFed: Universal Vector Quantization for Federated Learning,” (with Nir Shlezinger, Mingzhe Chen, Yonina C. Eldar and Shuguang Cui). *IEEE Transactions on Signal Processing*, Vol. 69, pp. 500 - 514, 2021.
- “A Machine Learning Approach for Task and Resource Allocation in Mobile Edge Computing Based Networks,” (with Sihua Wang, Mingzhe Chen, Xuanlin Liu, Changchuan Yin and Shuguang Cui). *IEEE Internet of Things Journal*, Vol. 8, No. 3, pp. 1358 - 1372, February 1, 2021.
- “Towards 6G Wireless Communication Networks: Vision, Enabling Technologies, and New Paradigm Shifts,” (with Xiaohu You, Cheng-Xiang Wang, Jie Huang, Xiqi Gao, Zaichen Zhang, Mao Wang, Yongming Huang, Chuan Zhang, Yanxiang Jiang, Jiaheng Wang, Min Zhu, Bin Sheng, Dongming Wang, Zhiwen Pan, Pengcheng Zhu, Yang Yang, Zening Liu, Ping Zhang, Xiaofeng Tao, Shaoqian Li, Zhi Chen, Xinying Ma, Chih-Lin I, Shuangfeng Han, Ke Li, Chengkang Pan, Zhimin Zheng, Lajos Hanzo, Xuemin (Sherman) Shen, Jay Yingjie Guo, Zhiguo Ding, Harald Haas, Wen Tong, Peiying Zhu, Ganghua Yang, Jun Wang, Erik G. Larsson, Hien Quoc Ngo, Wei Hong, Haiming Wang, Debin Hou, Jixin Chen, Zhe Chen, Zhangcheng Hao, Geoffrey Ye Li, Rahim Tafazollo, Yue

- Gao, Gerhard P. Fettweis and Ying-Chang Liang). *Science China Information Sciences*, Vol. 64, No. 1, Article 110301, 2021. [Hot Paper Award]
- “On the Latency, Rate and Reliability Tradeoff in Wireless Networked Control Systems for IIoT,” (with Wanchun Liu, Girish Nair, Yonghui Li, Dragan Nedic and Branka Vucetic). *IEEE Internet of Things Journal*, Vol. 8, No. 2, pp. 723 - 733, January 15, 2021.
- “Peer-to-Peer Energy Systems for Connected Communities: A Review of Recent Advances and Emerging Challenges,” (with Wayes Tushar, Chau Yuen, Tapan K. Saha, Thomas Morstyn, Archie Chapman, M. Jan E. Alam and Sarmad Hanif). *Applied Energy*, Vol. 282 Part A, Article 116131, January 15, 2021.
- “Orthogonal Chirp-Division Multiplexing for Power Line Sensing via Time-Domain Reflectometry,” (with Lucas Giroto de Oliveira, Mateus de L. Filomeno and Moisés V. Ribeiro). *IEEE Sensors Journal*, Vol. 21, No. 2, pp. 955 - 964, January 15, 2021.
- “Malicious Experts Versus the Multiplicative Weight Algorithm in Online Prediction,” (with Erhan Bayraktar and Xin Zhang). *IEEE Transactions on Information Theory*, Vol. 67, No. 1, pp. 559 - 565, January 2021.
- “A Unified Framework for SINR Analysis in Poisson Networks with Traffic Dynamics,” (with Howard H. Yang and Tony Q. S. Quek). *IEEE Transactions on Communications*, Vol. 69, No. 1 pp. 326 - 339, January 2021.
- “Capacity-Approaching Polar Codes with Long Codewords and Successive Cancellation Decoding Based on Improved Gaussian Approximation,” (with Hideki Ochiiai and Patrick Mitran). *IEEE Transactions on Communications*, Vol. 69, No. 1 pp. 31 - 43, January 2021.
- “A Joint Learning and Communications Framework for Federated Learning over Wireless Networks,” (with Mingzhe Chen, Zhaohui Yang, Walid Saad, Changchuan Yin and Shuguang Cui). *IEEE Transactions on Wireless Communications*, Vol. 20, No. 1, pp. 269 - 283, January 2021. [Recipient of the 2023 IEEE Marconi Prize Paper Award in Wireless Communications.]
- “Data-Driven False Data Injection Attacks Against Power Grids: A Random Matrix Approach,” (with Subhash Lakshminarayana, Abla Kammoun and Mérouane Debbah). *IEEE Transactions on Smart Grid*, Vol. 12, No. 1, pp. 635 - 646, January 2021.
- “Fast-Convergent Federated Learning,” (with Hung The Nguyen, Vikash Sehswag, Seyyedali Hosseinalipour, Christopher G. Brinton and Mung Chiang). *IEEE Journal on Selected Areas in Communications - Series on Machine Learning in Communications and Networks*, Vol. 39, No. 1, pp. 201 - 218, January 2021.
- “A Fiber Optic-Nanophotonic Approach to the Detection of Antibodies and Viral Particles of COVID-19,” (with N. Rajil, A. Sokolov, Z. Yi, G. Agarwal, V. Belousov, R. Brick, K. Chapin, J. Cirillo, V. Deckert, S. Delfan, S. Esmacili, A. Fernandez-Gonzalez, E. Fry, Z. Han, P. Hemmer, G. Kattawar, M. Kim, M. Lee, J. Leibowitz, C. Lu, T. Peng, S. Scully, S. Suckewer, A. Svidzinsky, A. Verhoef, D. Wang, K. Wang, A. Zheltikov, S. Zubairy and M. Scully), *Nanophotonics*, Vol. 10, No. 1, pp. 235 - 246, January 2021.
- “Load Forecasting through Estimated Parametrized Based Fuzzy Inference System in Smart Grids,” (with Mansoor Ali, Muhammad Adnan and Muhammad Tariq). *IEEE Transactions on Fuzzy Systems*, Vol. 29, No. 1, pp. 156 - 165, January 2021.
- “Energy-Efficient Data Dissemination Using a UAV: An Ant Colony Approach,” (with Ahmed A. Al-Habob, Octavia A. Dobre and Sami Muhaidat). *IEEE Wireless Communications Letters*, Vol. 10, No. 1, pp. 16 - 20, January 2021.
- “Shannon Meets Turing: Non-Computability of the Finite State Channel Capacity,” (with Holger Boche and Rafael F. Schaefer). *Communications in Information and Systems - Issue in Honor of the 85th Birthday of Prof. Thomas Kailath*, Vol. 20, No. 2, pp. 81 - 116, 2020.
- “Wireless Communications for Collaborative Federated Learning,” (with Mingzhe Chen, Walid Saad and Shuguang Cui). *IEEE Communication Magazine - Special Issue on Communication Technologies for Efficient Edge Learning*, Vol. 58, No. 12, pp. 48 - 54, December 2020.
- “Towards Self-learning Edge Intelligence in 6G,” (with Yong Xiao, Guangming Shi, Yingyu Li and Walid Saad). *IEEE Communication Magazine - Special Issue on Communication Technologies for Efficient Edge Learning*, Vol. 58, No. 12, pp. 34 - 40, December 2020.

- “Mean-Field-Type Game Based Computation Offloading in Mobile Edge Computing Networks,” (with Reginald Banez, Hamidou Tembine, Lixin Li, Chungang Yang, Lingyang Song and Zhu Han). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 12, pp. 8366 - 8381, December 2020.
- “Mean Field Evolutionary Dynamics in Dense-user Multi-access Edge Computing Systems,” (with Hao Gao, Wuchen Li, Reginald A. Banez and Zhu Han). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 12, pp. 7825 - 7835, December 2020.
- “PLC Systems Under the Presence of a Malicious Wireless Communication Device: Physical Layer Security Analyses,” (with Andrei Camponogara and Moisés Vidal Ribeiro). *IEEE Systems Journal*, Vol. 14, No. 4, pp. 4901 - 4910, December 2020.
- “Power Minimization for Multi-cell Uplink NOMA with Imperfect SIC,” (with Ming Zeng, Wanming Hao, Octavia Dobre and Zhiguo Ding). *IEEE Wireless Communications Letters*, Vol. 9, No. 12, pp. 2030 - 2034, December 2020.
- “Communication under Channel Uncertainty: An Algorithmic Perspective and Effective Construction,” (with Holger Boche and Rafael F. Schaefer). *IEEE Transactions on Signal Processing*, Vol. 68, pp. 6224 - 6239, 2020.
- “The Vector Poisson Channel: On the Linearity of the Conditional Mean Estimator,” (with Alex Dytso and Michael Fauß). *IEEE Transactions on Signal Processing*, Vol. 68, pp. 5894 - 5903, 2020.
- “Privacy-preserving Incremental ADMM for Decentralized Consensus Optimization,” (with Yu Ye, Hao Chen, Ming Xiao and Mikael Skoglund). *IEEE Transactions on Signal Processing*, Vol. 68, pp. 5842 - 5854, 2020.
- “Decoding Binary Linear Codes over Channels with Synchronization Errors,” (with Kai Yang, Jie Ren, Chao Tian and Ji Wang). *IEEE Journal on Selected Areas in Communications - Issue on 5G Wireless Communications with High Mobility*, Vol. 38, No. 12, pp. 2853 - 2863, December 2020.
- “A Workflow-Aided Internet of Things Paradigm, with Intelligent Edge Computing,” (with Yuwen Qian, Long Shi, Jun Li, Zhe Wang, Haibing Guan and Feng Shu). *IEEE Network*, Vol. 34, No. 6, pp. 92 - 99, November/December 2020.
- “Recovering Data Permutations from Noisy Observations: The Linear Regime,” (with Minoh Jeong, Alex Dytso and Martina Cardone). *IEEE Journal on Selected Areas in Information Theory - Issue on Estimation and Inference*, Vol. 1, No. 3, pp. 854 - 869, November 2020.
- “Diversity Gain Analysis of Distributed CDD Systems in Non-identical Fading Channels,” (with Kyeong Jin Kim, Hongwu Liu, Zhiguo Ding and Philip V. Orlik). *IEEE Transactions on Communications*, Vol. 68, No. 11, pp. 7218 - 7231, November 2020.
- “Optimization for Signal Transmission and Reception in a Macrocell of Heterogeneous Uplinks and Downlinks,” (with Hongwen Yu, Hoang D. Tuan, Trung Q. Duong and Y. Fang). *IEEE Transactions on Communications*, Vol. 68, No. 11, pp. 7054 - 7067, November 2020.
- “Cooperative Internet of UAVs: Distributed Trajectory Design by Multi-agent Deep Reinforcement Learning,” (with Jingzhi Hu, Hongliang Zhang, Lingyang Song and Robert Schober). *IEEE Transactions on Communications*, Vol. 68, No. 11, pp. 6807 - 6821, November 2020.
- “Machine Intelligence at the Edge with Learning Centric Power Allocation,” (with Shuai Wang, Yik-Chung Wu, Minghua Xia and Rui Wang). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 11, pp. 7293 - 7308, November 2020.
- “Reconfigurable Intelligent Surface Based RF Sensing: Design, Optimization, and Implementation,” (with Jingzhi Hu, Hongliang Zhang, Boya Di, Lianlin Li, Kaigui Bian, Lingyang Song, Yonghui Li and Zhu Han). *IEEE Journal on Selected Areas in Communications - Issue on Wireless Networks Empowered by Reconfigurable Intelligent Surfaces*, Vol. 38, No. 11, pp. 2700 - 2716, November 2020.
- “Joint Design of Reconfigurable Intelligent Surfaces and Transmit Beamforming under Proper and Improper Gaussian Signaling,” (with Hongwen Yu, Hoang D. Tuan, Ali A. Nasir and Trung Q. Duong). *IEEE Journal on Selected Areas in Communications - Issue on Wireless Networks Empowered by Reconfigurable Intelligent Surfaces*, Vol. 38, No. 11, pp. 2589 - 2603, November 2020.
- “A Novel Spectrally-Efficient Uplink Hybrid-Domain NOMA System,” (with Chen Quan, Animesh Yadav, Baocheng Geng and Pramod K. Varshney). *IEEE Communications Letters*, Vol. 24, No. 12, pp. 2609 - 2613, November 2020.

- *“Unveiling the Importance of SIC in NOMA Systems: Part I - State of the Art and Recent Findings,” (with Zhiguo Ding and Robert Schober). *IEEE Communications Letters*, Vol. 24, No. 12, pp. 2373 - 2377, November 2020.
- *“Unveiling the Importance of SIC in NOMA Systems: Part II - New Results and Future Directions,” (with Zhiguo Ding and Robert Schober). *IEEE Communications Letters*, Vol. 24, No. 12, pp. 2378 - 2382, November 2020.
- “Minimax Optimal Sequential Hypothesis Tests for Markov Processes,” (with Michael Fauß and Abdelhak M. Zoubir). *Annals of Statistics*, Vol. 48, No. 5, pp. 2599 - 2621, October 2020.
- “Identification Capacity of Channels with Feedback: Discontinuity Behavior, Super-Activation, and Turing Computability,” (with Rafael Schaefer and Holger Boche). *IEEE Transactions on Information Theory*, Vol. 66, No. 10, pp. 6184 - 6199, October 2020.
- “Mean Field Game Guided Deep Reinforcement Learning for Task Placement in Cooperative Multi-Access Edge Computing,” (with Dian Shi, Hao Gao, Li Wang, Miao Pan and Zhu Han). *IEEE Internet of Things Journal - Special Issue on Artificial Intelligence Powered Edge Computing for Internet of Things*, Vol. 7, No. 10, pp. 9330 - 9340, October 2020.
- “Challenges and Prospects for Negawatt Trading in Light of Recent Technological Developments,” (with Wayes Tushar, Tapan Saha, Chau Yuen, David Smith, Subarna Basnet, and Peta Ashworth). *Nature Energy*, 2020. <https://doi.org/10.1038/s41560-020-0671-0>
- “Smart Routing of Electric Vehicles for Load Balancing in Smart Grids,” (with S. Rasoul Etesami, Walid Saad and Narayan Mandayam). *Automatica*, Vol. 120, Article 109148, October 2020.
- “Hybrid Power Line/Wireless Systems: An Optimal Power Allocation Perspective,” (with Mateus de L. Filomeno, Marcello L. R. de Campos and Moisés V. Ribeiro). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 10, pp. 6289 - 6300, October 2020.
- “Age of Information in a Cellular Internet of UAVs: Sensing and Communication Trade-off Design,” (with Shuhang Zhang, Hongliang Zhang, Lingyang Song and Zhu Han). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 10, pp. 6578 - 6592, October 2020.
- “Superposition in NOMA with Proper and Improper Gaussian Signaling,” (with Ali A. Nasir, Hoang D. Tuan, Ha H. Nguyen and Trung Q. Duong). *IEEE Transactions on Communications*, Vol. 68, No. 10, pp. 6537 - 6551, October 2020.
- “Hierarchical Incentive Mechanism Design for Federated Machine Learning in Mobile Networks,” (with Wei Yang Bryan Lim, Zehui Xiong, Chunyan Miao, Dusit Niyato, Qiang Yang and Cyril Leung). *IEEE Internet of Things Journal - Special Issue on Artificial Intelligence Powered Edge Computing for Internet of Things*, Vol. 7, No. 10, pp. 9575 - 9588, October 2020.
- “On the Physical Layer Security of Millimeter Wave NOMA Networks,” (with Shaocheng Huang and Ming Xiao). *IEEE Transactions on Vehicular Technology*, Vol. 69, No. 10, pp. 11,697 - 11,711, October 2020.
- “On the Impact of Phase Shifting Designs on IRS-NOMA,” (with Zhiguo Ding and Robert Schober). *IEEE Wireless Communications Letters*, Vol. 9, No. 10, pp. 1596 - 1600, October 2020.
- “Privacy-Cost Trade-offs in Smart Electricity Metering Systems,” (with Giulio Giaconi and Deniz Gündüz). *IET Smart Grid - Special Issue on Privacy and Security in Smart Grids*, Vol. 3, No. 5, pp. 596 - 604, October 2020.
- “High Frequency Power Electronics at the Grid Edge: A Bottom Up Approach towards the Smart Grid,” (with Minjie Chen). *IEEE Electrification Magazine*, Vol. 8, No. 3, pp. 6 - 17, September 2020.
- “A Reinforcement Learning and Blockchain-Based Trust Mechanism for Edge Networks,” (with Liang Xiao, Yuzhen Ding, Donghua Jiang, Ye Chen, Dongming Wang and Jie Li). *IEEE Transactions on Communications*, Vol. 68, No. 9, pp. 5460 - 5470, September 2020.
- “A Multi-Dimensional Contract Approach for Data Rewarding in Mobile Networks,” (with Zehui Xiong, Jiawen Kang, Dusit Niyato and Ping Wang). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 9, pp. 5779 - 5793, September 2020.
- “A Multi-jammer Game with Latency as the User’s Communication Utility,” (with Andrey GarnaeV, Athina Petropulu and Wade Trappe). *IEEE Communications Letters*, Vol. 24, No. 9, pp. 1899 - 1903, September 2020.

- “Joint D2D Assignment, Bandwidth and Power Allocation in Cognitive UAV-enabled Networks,” (with Huy T. Nguyen, Hoang D. Tuan, Trung Q. Duong and Won-Joo Hwang). *IEEE Transactions on Cognitive Communications and Networking*, Vol. 6, No. 3, pp. 1084 - 1095, September 2020.
- “Protecting the Grid against MAD Attacks,” (with Saleh Soltan and Prateek Mittal). *IEEE Transactions on Network Science and Engineering*, Vol. 7, No. 3, pp. 1310 - 1326, July-September 2020.
- “Blind Interference Alignment with ISI: A New Look at OFDM for K -User Interference Channels,” (with Byungju Lee, Namyoon Lee, and Wonjae Shin). *IEEE Transactions on Signal Processing*, Vol. 68, pp. 4497 - 4512, 2020.
- “A Jamming Game with Rival-Type Uncertainty,” (with Andrey Garnaev, Wade Trappe and Athina Petropulu). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 8, pp. 5359 - 5372, August 2020.
- “Hybrid Beamforming for Reconfigurable Intelligent Surface Based Multi-user Communications: Achievable Rates with Limited Discrete Phase Shifts,” (with Boya Di, Hongliang Zhang, Lingyang Song, Yonghui Li and Zhu Han). *IEEE Journal on Selected Areas in Communications - Issue on Multiple Antenna Technologies for Beyond 5G*, Vol. 38, No. 8, pp. 1809 - 1822, August 2020.
- “Statistical Delay and Error-Rate Bounded QoS Provisioning Over mmWave Cell-Free M-MIMO and FBC-HARQ-IR Based 6G Wireless Networks,” (with Xi Zhang and Jingqing Wang). *IEEE Journal on Selected Areas in Communications - Issue on Multiple Antenna Technologies for Beyond 5G*, Vol. 38, No. 8, pp. 1661 - 1677, August 2020.
- “Deep Learning for Wireless Communications: An Emerging Interdisciplinary Paradigm,” (with Linglong Dai, Ruicheng Jiao, Fumiyuki Adachi and Lajos Hanzo). *IEEE Wireless Communications*, Vol. 27, No. 4, pp. 133 - 139, August 2020.
- “On Safeguarding Privacy and Security in the Framework of Federated Learning,” (with Chuan Ma, Jun Li, Ming Ding, Howard H. Yang, Feng Shu and Tony Q. S. Quek). *IEEE Network*, Vol. 24, No. 4, pp. 242 - 248, July/August 2020.
- “Instability Detection and Prevention in Smart Grids Under Asymmetric Faults,” (with Muhammad Tariq, Muhammad Adnan and Guatam Srivastava). *IEEE Transactions on Industry Applications - Special Issue on Security, Reliability, Privacy, and Quality in Industrial Automation and Control*, Vol. 56, No. 4, pp. 4510 - 4520, July/August 2020.
- “Estimation in Poisson Noise: Properties of the Conditional Mean Estimator,” (with Alex Dytso). *IEEE Transactions on Information Theory*, Vol. 66, No. 7, pp. 4304 - 4323, July 2020.
- “Denial-of-Service Attacks on Communication Systems: Detectability and Jammer Knowledge,” (with Holger Boche and Rafael F. Schaefer). *IEEE Transactions on Signal Processing*, Vol. 68, pp. 3754 - 3768, 2020.
- “Federated Learning with Differential Privacy: Algorithms and Performance Analysis,” (with Kang Wei, Jun Li, Ming Ding, Chuan Ma, Howard H. Yang, Farokhi Farhad, Shi Jin and Tony Q. S. Quek). *IEEE Transactions on Information Forensics and Security*, Vol. 15, No. 1, pp. 3454 - 3469, 2020. [2022 IEEE Signal Processing Society Best Paper Award]
- “Rate Splitting for Uplink NOMA with Enhanced Fairness and Outage Performance,” (with Hongwu Liu, Theodoros A. Tsiftsis, Kyeong Jin Kim and Kyung Sup Kwak). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 7, pp. 4657 - 4670, July 2020.
- “Intelligent User Association for Symbiotic Radio Networks Using Deep Reinforcement Learning,” (with Qianqian Zhang and Ying-Chang Liang). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 7, pp. 4535 - 4548, July 2020.
- “Dual-Hop Spatial Modulation with a Relay Transmitting Its Own Information,” (with Qiang Li, Miaowen Wen, Marco Di Renzo and Fangjiong Chen). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 7, pp. 4449 - 4463, July 2020.
- “Object Recognition at Higher Regions of the Ventral Visual Stream via Dynamic Inference,” (with Siamak K. Sorooshyari and Huanjie Sheng). *Frontiers in Computational Neuroscience*, 14:46, 2020.
- “Peer-to-Peer Trading in Electricity Networks: An Overview,” (with Wayes Tushar, Tapan Kumar Saha, Chau Yuen and David Smith). *IEEE Transactions on Smart Grid*, Vol. 11, No. 4, pp. 3185 - 3200,

- July 2020. [Chosen in 2022 as one of the top 5 papers published in the *IEEE Transactions on Smart Grid* over the previous three years.]
- “MIMO Radar for ADAS and Autonomous Driving: Advantages and Challenges,” (with Shunqiao Sun and Athina P. Petropulu). *IEEE Signal Processing Magazine*, Vol. 38, No. 4, pp. 98 - 117, July 2020.
- “User Preference Aware Lossless Data Compression at the Edge,” (with Yawei Lu and Wei Chen). *IEEE Transactions on Communications*, Vol. 68, No. 6, pp. 3792 - 3807, June 2020.
- “Dedicated Energy Harvesting in Concatenated Hybrid PLC-Wireless Systems,” (with Victor Fernandes and Moisés V. Ribeiro). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 6, pp. 3839 - 3853, June 2020.
- “Robust Power Allocation for Parallel Gaussian Channels with Approximately Gaussian Input Distributions,” (with Wei Cao, Alex Dytso, Michael Fauß and Gang Feng). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 6, pp. 3685 - 3699, June 2020.
- “Delay Minimization for Massive MIMO Assisted Mobile Edge Computing,” (with Ming Zeng and Octavia A. Dobre). *IEEE Transactions on Vehicular Technology*, Vol. 69, No. 6, pp. 6788 - 6792, June 2020.
- “Massive MIMO-Assisted Mobile Edge Computing: Exciting Possibilities for Computation Offloading,” (with Ming Zeng, Wanming Hao, Octavia Dobre and Zhiguo Ding). *IEEE Vehicular Technology Magazine*, Vol. 15, No. 2, pp. 31 - 38, June 2020.
- “Capacity Scaling of Massive MIMO in Strong Spatial Correlation Regimes,” (with Junyoung Nam, Giuseppe Caire and M erouane Debbah). *IEEE Transactions on Information Theory*, Vol. 66, No. 5, pp. 3040 - 3064, May 2020.
- “Physical-Layer Security with Optical Generalized Space Shift Keying,” (with Erdal Panayirci, Anil Yesilkaya, Tezcan Cogalan and Harald Haas). *IEEE Transactions on Communications*, Vol. 68, No. 5, pp. 3042 - 3056, May 2020.
- “Secrecy Performance Analysis of Distributed Asynchronous Cyclic Delay Diversity-Based Cooperative Single Carrier Systems” (with Kyeong Jin Kim, Hongwu Liu, Miaowen Wen and Philip V. Orlik). *IEEE Transactions on Communications*, Vol. 68, No. 5, pp. 2680 - 2694, May 2020.
- “Secure UAV-Enabled Communication Using Han-Kobayashi Signaling,” (with Zhichao Sheng, Hoang D. Tuan, Ali A. Nasir and Trung Q. Duong). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 5, pp. 2905 - 2919, May 2020.
- “A Simple Design of IRS-NOMA Transmission,” (with Zhiguo Ding). *IEEE Communications Letters*, Vol. 24, No. 5, pp. 1119 - 1123, May 2020.
- “Learning Nonnegative Factors from Tensor Data: Probabilistic Modeling and Inference Algorithm,” (with Lei Cheng, Xueke Tong and Yik-Chung Wu). *IEEE Transactions on Signal Processing*, Vol. 68, No. 1, pp. 1792 - 1806, 2020.
- “The Capacity Achieving Distribution for the Amplitude Constrained Additive Gaussian Channel: An Upper Bound on the Number of Mass Points,” (with Alex Dytso, Semih Yagli and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 66, No. 4, pp. 2006 - 2022, April 2020.
- “LPD Communication: A Sequential Change-Point Detection Perspective,” (with Ke-Wen Huang, Hui-Ming Wang and Don Towsley). *IEEE Transactions on Communications*, Vol. 68, No. 4, pp. 2474 - 2490, April 2020.
- “A False Discovery Rate Oriented Approach to Parallel Sequential Change Detection Problems,” (with Jie Chen and Wenyi Zhang). *IEEE Transactions on Signal Processing*, Vol. 68, No. 1, pp. 1823 - 1836, 2020.
- “New Viewpoint and Algorithms for Water-Filling Solutions in Wireless Communications,” (with Chengwen Xing, Yindi Jing, Shuai Wang and Shaodan Ma). *IEEE Transactions on Signal Processing*, Vol. 68, No. 1, pp. 1618 - 1634, 2020.
- “Enhancing Physical Layer Security Via Channel Feedback: A Survey,” (with Bin Dai, Chong Li, Yingbin Liang and Shlomo Shamai). *EURASIP Journal on Wireless Communications and Networking - Special Issue on Physical Layer Security Solutions for 5G-and-Beyond*, Vol. 2020, Article Number 58, 2020.

- “Cloud/Edge Computing Service Management in Blockchain Networks: Multi-leader Multi-follower Game-based ADMM for Pricing,” (with Zehui Xiong, Jiawen Kang, Dusit Niyato and Ping Wang). *IEEE Transactions on Services Computing - Special Issue on Blockchain-Based Services Computing*, Vol. 13, No. 2, pp. 356 - 367, March/April 2020.
- “The Effects of Evolutionary Adaptations on Spreading Processes in Complex Networks,” (with Rashad Eletreby, Yong Zhuang, Kathleen M. Carley and Osman Yağan). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 117, No. 11, pp. 5664 - 5670, March 17, 2020.
- “Nonsmooth Optimization Algorithms for Multicast Beamforming in Content-Centric Fog Radio Access Networks,” (with Huy T. Nguyen, Hoang Duong Tuan, Trung Q. Duong and Won-Joo Hwang). *IEEE Transactions on Signal Processing*, Vol. 68, No. 1, pp. 1455 - 1469, 2020.
- “Robust Data Detection for MIMO Systems with One-Bit ADCs: A Reinforcement Learning Approach,” (with Yo-Seb Jeon and Namyoon Lee). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 3, pp. 1663 - 1676, March 2020.
- “Grid Influenced Peer-to-Peer Energy Trading,” (with Wayes Tushar, Tapan Saha, Chau Yuen, Thomas Morstyn, Nahid-Al-Masood and Richard Bean). *IEEE Transactions on Smart Grid*, Vol. 11, No. 2, pp. 1407 - 1418, March 2020.
- “Stealth Attacks on the Smart Grid,” (with Ke Sun, Iñaki Esnaola and Samir M. Perlaza). *IEEE Transactions on Smart Grid*, Vol. 11, No. 2, pp. 1276 - 1287, March 2020.
- “Hybrid Beamforming for Multi-User Millimeter-wave Networks,” (with Ali A. Nasir, Hoang D. Tuan, Trung Q. Duong and Lajos Hanzo). *IEEE Transactions on Vehicular Technology*, Vol. 69, No. 3, pp. 2943 - 2956, March 2020.
- “Rate-Splitting Unifying SDMA, OMA, NOMA, and Multicasting in MISO Broadcast Channel: A Simple Two-User Rate Analysis,” (with Bruno Clerckx, Yijie Mao and Robert Schober). *IEEE Wireless Communications Letters*, Vol. 9, No. 3, pp. 349 - 353, March 2020.
- “A Coalition Formation Game Framework for Peer-to-Peer Energy Trading,” (with Wayes Tushar, Tapan K. Saha, Chau Yuen, M. Imran Azim, Thomas Morstyn, Dustin Niyato and Richard Bean). *Applied Energy*, Vol. 261, Article 114436, March 1, 2020.
- “A Prototype of Co-frequency Co-time Full Duplex Networking,” (with Meng Ma, Shuyi Tian, Yingyang Chen, Li Wang, Lei Wan and Bingli Jiao). *IEEE Wireless Communications*, Vol. 27, No. 1, pp. 132 - 139, February 2020.
- “Reinforcement Learning for a Cellular Internet of UAVs: Protocol Design, Trajectory Control, and Resource Management,” (with Jingzhi Hu, Hongliang Zhang, Lingyang Song and Zhu Han). *IEEE Wireless Communications - Issue on Intelligent Radio: When Artificial Intelligence Meets Radio Network*, Vol. 27, No. 1, pp. 116 - 123, February 2020.
- “MIMO-OFDM-Based Wireless-Powered Relaying Communication with an Energy Recycling Interface,” (with Ali A. Nasir, Hoang D. Tuan and Trung Q. Duong). *IEEE Transactions on Communications*, Vol. 68, No. 2, pp. 811 - 824, February 2020.
- “Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks with NOMA,” (with Haijun Zhang, Mengting Feng, Keping Long, George K. Karagiannidis and Victor C.M. Leung). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 2, pp. 835 - 845, February 2020.
- “A Systematic Approach to Deriving the Covariance Matrix of Correlated Nakagami- m Fading Channels,” (with Jia-Chin Lin). *IEEE Transactions on Vehicular Technology*, Vol. 69, No. 2, pp. 1612 - 1625, February 2020.
- “Age-Minimal Transmission for Energy Harvesting Sensors with Finite Batteries: Online Policies,” (with Ahmed Arafa, Jing Yang and Sennur Ulukus). *IEEE Transactions on Information Theory*, Vol. 66, No. 1, pp. 534 - 566, January 2020.
- “Power Allocation in Cache-Aided NOMA Systems: Optimization and Deep Reinforcement Learning Approaches,” (with Khai Nguyen Doan, Mojtaba Vaezi, Hyundong Shin and Tony Q. S. Quek). *IEEE Transactions on Communications*, Vol. 68, No. 1, pp. 630 - 644, January 2020.
- “A Game-Theoretic Analysis for Complementary and Substitutable IoT Services Delivery with Externalities,” (with Yang Zhang, Zehui Xiong, Dusit Niyato and Jun Zhao). *IEEE Transactions on Communications*, Vol. 68, No. 1, pp. 615 - 629, January 2020.

- “Scheduling Policies for Federated Learning in Wireless Networks,” (with Howard H. Yang, Zuozhu Liu and Tony Q. S. Quek). *IEEE Transactions on Communications*, Vol. 68, No. 1, pp. 317 - 333, January 2020.
- “A Learning-to-Infer Method for Real-Time Power Grid Multi-Line Outage Identification,” (with Yue Zhao and Jianshu Chen). *IEEE Transactions on Smart Grid*, Vol. 11, No. 1, pp. 555 - 564, January 2020.
- “Secure Communication and Identification Systems - Effective Performance Evaluation on Turing Machines,” (with Holger Boche and Rafael F. Schaefer). *IEEE Transactions on Information Forensics and Security*, Vol. 15, No. 1, pp. 1013 - 1025, January 2020.
- “Secure Storage Capacity under Rate Constraints - Continuity and Super Activation,” (with Sebastian Baur, Holger Boche and Rafael Schaefer). *IEEE Transactions on Information Forensics and Security*, Vol. 15, No. 1, pp. 959 - 970, January 2020.
- “Secure Relaying in Non-Orthogonal Multiple Access: Trusted and Untrusted Scenarios,” (with Ahmed Arafa, Wonjae Shin and Mojtaba Vaezi). *IEEE Transactions on Information Forensics and Security*, Vol. 15, No. 1, pp. 210 - 222, January 2020.
- “Reinforcement Learning-Based Downlink Interference Control for Ultra-Dense Small Cells,” (with Liang Xiao, Hailu Zhang, Yilin Xiao, Xiaoyue Wan, Sicong Liu and Li-Chun Wang). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 1, pp. 424 - 434, January 2020.
- “Opportunistic Spectrum Sharing Based on OFDM With Index Modulation,” (with Qiang Li, Miaowen Wen, Shuping Dang, Ertuğrul Başar and Fangjiong Chen). *IEEE Transactions on Wireless Communications*, Vol. 19, No. 1, pp. 192 - 204, January 2020.
- “PMU Placement Optimization for Efficient Smart Grid State Estimation,” (with Ye Shi, Hoang D. Tuan, Ali A. Nasir and Trung Q. Duong). *IEEE Journal on Selected Areas in Communications - Issue on Communications and Data Analytics in Smart Grid*, Vol. 38, No.1, pp. 71 - 83, January 2020.
- “Peer-to-Peer Energy Trading in DC Packetized Power Microgrids,” (with Haobo Zhang, Hongliang Zhang, Lingyang Song, Yonghui Li and Zhu Han). *IEEE Journal on Selected Areas in Communications - Issue on Communications and Data Analytics in Smart Grid*, Vol. 38, No.1, pp. 17 - 30, January 2020.
- “MMSE Bounds for Additive Noise Channels Under Kullback-Leibler Divergence Constraints on the Input Distribution,” (with Michael Fauß, Alex Dytso and Abdelhak M. Zoubir). *IEEE Transactions on Signal Processing*, Vol. 67, No. 24, pp. 6352 - 6367, December 15, 2019.
- “Effective Secrecy Rate for a Downlink NOMA Network,” (with Wenjuan Yu, Arsenia Chorti, Leila Musavian and Qiang Ni). *IEEE Transactions on Wireless Communications*, Vol. 18, No. 12, pp. 5673 - 5690, December 2019.
- “Heterogeneous Statistical-QoS Driven Resource Allocation Over MmWave Massive-MIMO Based 5G Mobile Wireless Networks in the Non-Asymptotic Regime,” (with Xi Zhang and Jinqing Wang). *IEEE Journal on Selected Areas in Communications - Issue on Millimeter-wave Networking*, Vol. 37, No. 12, pp. 2727 - 2743, December 2019.
- “Sum-Throughput Maximization with QoS Constraints for Cooperative WPCNs,” (with Dongyeong Song, Wonjae Shin and Jungwoo Lee). *IEEE Access*, Vol 7, No. 1, pp. 130,622 - 130,637, December 2019.
- “Reinforcement Learning Based Microgrid Energy Trading with a Reduced Power Plant Schedule,” (with Xiaozhen Lu, Xingyu Xiao, Liang Xiao, Canhuang Dai and Mugen Peng). *IEEE Internet of Things Journal*, Vol. 6, No. 6, pp. 10728 - 10737, December 2019.
- “PC²A: Predicting Collective Contextual Anomalies via LSTM with Deep Generative Model” (with Shaoyu Dou and Kai Yang). *IEEE Internet of Things Journal*, Vol. 6, No. 6, pp. 9645 - 9655, December 2019.
- “Delay Minimization for NOMA-assisted MEC under Power and Energy Constraints,” (with Ming Zeng, Nam-Phong Nguyen and Octavia A. Dobre). *IEEE Wireless Communications Letters*, Vol. 8, No. 6, pp. 1657 - 1661, December 2019.

- “OTFS-NOMA: An Efficient Approach for Exploiting Heterogenous User Mobility Profiles,” (with Zhiguo Ding, Robert Schober and Pingzhi Fan). *IEEE Transactions on Communications*, Vol. 67, No. 11, pp. 7950 - 7965, November 2019.
- “Harvest-or-Access: Slotted ALOHA for Wireless Powered Communication Networks,” (with Hyun-Ho Choi, Wonjae Shin and Marco Levorato). *IEEE Transactions on Vehicular Technology*, Vol. 68, No. 11, pp. 11394 - 11398, November 2019.
- “High-reliability and Low-latency Communication for Internet of Things: Challenges, Fundamentals and Enabling Technologies,” (with Zheng Ma, Ming Xiao, Yue Xiao, Zhibo Pang and Branka Vucetic). *IEEE Internet of Things Journal*, Vol. 6, No. 5, pp. 7946 - 7970, October 2019.
- “Non-Orthogonal Multiple Access: Common Myths and Critical Questions,” (with Mojtaba Vaezi, Robert Schober and Zhiguo Ding). *IEEE Wireless Communications*, Vol. 26, No. 5, pp. 174 - 180, October 2019.
- “Cooperation Techniques for a Cellular Internet of Unmanned Aerial Vehicles,” (with Hongliang Zhang, Lingyang Song and Zhu Han). *IEEE Wireless Communications*, Vol. 26, No. 5, pp. 167 - 173, October 2019.
- “What Network Motifs Tell Us about Resilience and Reliability of Complex Networks,” (with Asim K. Dey and Yulia R. Gel). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 116, No. 39, pp. 19368 - 19373, September 24, 2019.
- “Secrecy Capacity of Colored Gaussian Noise Channels with Feedback,” (with Chong Li, Yingbin Liang and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 65, No. 9, pp. 5771 - 5782, September 2019.
- “Line Failure Detection after a Cyber-Physical Attack on the Grid Using Bayesian Regression,” (with Saleh Soltan and Prateek Mittal). *IEEE Transactions on Power Systems*, Vol. 34, No. 5, pp. 3758 - 3768, September 2019.
- “Peer-to-Peer Packet Dispatching for Multi-router Local Area Packetized Power Network,” (with Hongliang Zhang, Lingyang Song and Yonghui Li). *IEEE Transactions on Smart Grid*, Vol. 10, No. 5, pp. 5748 - 5758, September 2019.
- “On Estimating the Norm of a Gaussian Vector under Additive White Gaussian Noise,” (with Alex Dytso and Martina Cardone). *IEEE Signal Processing Letters*, Vol. 26, No. 9, pp. 1325 - 1329, September 2019.
- “Spectral- and Energy-Efficient Resource Allocation for Multi-carrier Uplink NOMA Systems,” (with Ming Zeng, Nam-Phong Nguyen, Octavia A. Dobre and Zhiguo Ding). *IEEE Transactions on Vehicular Technology*, Vol. 68, No. 9, pp. 9293 - 9296, September 2019.
- “Probabilistic Caching for Small-Cell Networks with Terrestrial and Aerial Users,” (with Fei Song, Jun Li, Ming Ding, Long Shi, Feng Shu, Meixia Tao and Wen Chen). *IEEE Transactions on Vehicular Technology*, Vol. 68, No. 9, pp. 9162 - 9177, September 2019.
- “Data Driven Electricity Management for Residential Air Conditioning Systems: An Experimental Approach,” (with Wen-Tai Li, Sai Ram Gubba, Wayes Tushar, Chau Yuen, Naveed Ul Hassan, Kristin L. Wood and Chao-Kai Wen). *IEEE Transactions on Emerging Topics in Computing*, Vol. 7, No. 3, pp. 380 - 391, July - September 2019.
- “On the Algorithmic Computability of the Secret Key and Authentication Capacity under Channel, Storage, and Privacy Leakage Constraints,” (with Holger Boche, Rafael F. Schaefer and Sebastian Baur). *IEEE Transactions on Signal Processing*, Vol. 67, No. 17, pp. 4636 - 4648, September 1, 2019.
- “Sum-Capacity of the MIMO Many-Access Gaussian Channel,” (with Wei Cao, Alex Dytso, Yanina Shkel and Gang Feng). *IEEE Transactions on Communications*, Vol. 67, No. 8, pp. 5419 - 5433, August 2019.
- “A Tensor-Based Framework for Studying Eigenvector Multicentrality in Multilayer Networks,” (with Mincheng Wu, Yongtao Zhang, Shibo He, Jiming Chen, Youxian Sun, Yang-Yu Liu and Junshan Zhang). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 116, No. 31, pp. 15407 - 15413, July 30, 2019.

- “Wiretap Channels: Nonasymptotic Fundamental Limits,” (with Wei Yang and Rafael F. Schaefer). *IEEE Transactions on Information Theory*, Vol. 65, No. 7, pp. 4069 - 4093, July 2019.
- “UAV-Enabled Communication Using NOMA,” (with Ali A. Nasir, Hoang D. Tuan and Trung Q. Duong). *IEEE Transactions on Communications*, Vol. 67, No. 7, pp. 5126 - 5138, July 2019.
- “On the Capacity of the Peak Power Constrained Vector Gaussian Channel: An Estimation Theoretic Perspective,” (with Alex Dytso, Mert Al and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol 65, No. 6, pp. 3907 - 3921, June 2019.
- “Simple Semi-Grant-Free Transmission Strategies Assisted by Non-Orthogonal Multiple Access,” (with Zhiguo Ding, Robert Schober and Pingzhi Fan). *IEEE Transactions on Communications*, Vol. 67, No. 6, pp. 4464 - 4478, June 2019.
- “Outage Probability Analysis of Spectrum Sharing Systems with Distributed Cyclic Delay Diversity,” (with Kyeong Jin Kim, Hongwu Liu, Miaowen Wen and Marco Di Renzo). *IEEE Transactions on Communications*, Vol. 67, No. 6, pp. 4435 - 4439, June 2019.
- “Relay-Aided Secure Broadcasting for Visible Light Communications,” (with Ahmed Arafa and Erdal Panayirci). *IEEE Transactions on Communications*, Vol. 67, No. 6, pp. 4227 - 4239, June 2019.
- *“Dynamic Task Offloading and Resource Allocation for Ultra-Reliable and Low-Latency Mobile Edge Computing,” (with Chen-Feng Liu, Mehdi Bennis and M erouane Debbah). *IEEE Transactions on Communications*, Vol. 67, No. 6, pp. 4132 - 4150, June 2019.
- “Request Delay Based Pricing for Proactive Caching: A Stackelberg Game Approach,” (with Wei Huang and Wei Chen). *IEEE Transactions on Wireless Communications*, Vol. 18, No. 6, pp. 2903 - 2918, June 2019.
- “Spatial Modulation-Aided Cooperative NOMA: Performance Analysis and Comparative Study,” (with Qiang Li, Miaowen Wen, Ertuğrul Başar and Fangjiong Chen). *IEEE Journal on Selected Topics in Signal Processing - Issue on Signal Processing Advances for Non-Orthogonal Multiple Access in Next Generation Wireless Networks*, Vol. 19, No. 3, pp. 715 728, June 2019
- “Securing Downlink Massive MIMO NOMA Networks with Artificial Noise,” (with Ming Zeng, Nam-Phong Nguyen and Octavia A. Dobre). *IEEE Journal on Selected Topics in Signal Processing - Issue on Signal Processing Advances for Non-Orthogonal Multiple Access in Next Generation Wireless Networks*, Vol. 19, No. 3, pp. 685 - 699, June 2019.
- “Non-Orthogonal Multiple Access with Improper Gaussian Signaling,” (with Hoang Duong Tuan, Ali A. Nasir, Ha H. Nguyen, Trung Q. Duong). *IEEE Journal on Selected Topics in Signal Processing - Issue on Signal Processing Advances for Non-Orthogonal Multiple Access in Next Generation Wireless Networks*, Vol. 19, No. 3, pp. 496 - 507, June 2019.
- “Peer Prediction Based Trustworthiness Evaluation and Trustworthy Service Rating in Social Networks,” (with Jun Du, Erol Gelenbe, Chunxiao Jiang, Haijun Zhang and Yong Ren). *IEEE Transactions on Information Forensics and Security*, Vol. 14, No. 6, pp. 1582 - 1594, June 2019.
- “Joint Power and Time Allocation for NOMA-MEC Offloading,” (with Zhiguo Ding, Jie Xu, and Octavia Dobre). *IEEE Transactions on Vehicular Technology*, Vol. 68, No. 6, pp. 6207 - 6211, June 2019.
- “Energy-Efficient Joint User-RB Association and Power Allocation for Uplink Hybrid NOMA-OMA,” (with Ming Zeng, Animesh Yadav and Octavia A. Dobre). *IEEE Internet of Things Journal*, Vol. 6, No. 3, pp. 5119 - 5131, June 2019.
- “A Motivational Game-Theoretic Approach for Peer-to-Peer Energy Trading in the Smart Grid,” (with Wayes Tushar, Tapan Kumar Saha, Chau Yuen, Thomas Morstyn, Malcolm D. McCulloch and Kristin L. Wood). *Applied Energy*, Vol. 243, pp. 10 - 20, June 1, 2019.
- “Improper Gaussian Signaling for Broadcast Interference Networks,” (with Ali Arshad Nasir, Hoang Duong Tuan and Trung Q. Duong). *IEEE Signal Processing Letters*, Vol. 26, No. 6, pp. 808 - 812, June 2019.
- “Utilization of Opportunistic-Bits with Paired Transmissions,” (with Mingxi Yin, Jialing Chen and Bingli Jiao). *IEEE Wireless Communications Letters*, Vol. 8, No. 3, pp. 661 - 664, June 2019.
- “Multi-user Regularized Zero-forcing Beamforming,” (with L. D. Nguyen, Hoang D. Tuan and Trung Q. Duong). *IEEE Transactions on Signal Processing*, Vol. 67, No. 11, pp. 2839 - 2853, June 1, 2019.

- “Data-Driven Measurement of Receiver Sensitivity in Wireless Communication Systems,” (with Yuan Ma, Xu Wang and and Zhi Quan). *IEEE Transactions on Communications*, Vol. 67, No. 5, pp. 3665 - 3676, May 2019.
- “Collaborative Multicast Beamforming for Content Delivery by Cache-enabled Ultra Dense Networks,” (with Van-Dinh Nguyen, Hoang D. Tuan, Trung Q. Dong and Won-Joo Hwang). *IEEE Transactions on Communications*, Vol. 67, No. 5, pp. 3396 - 3406, May 2019.
- “Secure Short-Packet Communications for Mission-Critical IoT Applications,” (with Hui-Ming Wang, Qian Yang and Zhiguo Ding). *IEEE Transactions on Wireless Communications*, Vol. 18, No. 5, pp. 2565 - 2578, May 2019.
- “Caching with Time Domain Buffer Sharing,” (with Wei Chen). *IEEE Transactions on Communications*, Vol. 67, No. 4, pp. 2730 - 2745, April 2019.
- “Distributed CDD Systems with Spatially Distributed Interferers,” (with Kyeong Jin Kim, Marco Di Renzo, Hongwu Liu, Theodoros A. Tsiftsis and Philip V. Orlik). *IEEE Transactions on Wireless Communications*, Vol. 18, No. 4, pp. 2066 - 2079, April 2019.
- “Ultra-Dense LEO: Integration of Satellite Access Networks into 5G and Beyond,” (with Boya Di, Lingyang Song and Yonghui Li). *IEEE Wireless Communications*, Vol. 26, No. 2, pp. 62 - 69, April 2019.
- “The Complete and Incomplete Low-Bit-Rate Hybrid PLC/Wireless Channel Models: Physical Layer Secrecy Analyses,” (with Andrei Camponogara and Moisés Vidal Ribeiro). *IEEE Internet of Things Journal*, Vol. 6, No. 2, pp. 2760 - 2769, April 2019.
- “Sparse Channel Estimation for OFDM-Based Underwater Acoustic Systems in Rician Fading with a New OMP-MAP Algorithm,” (with Erdal Panayirci, Mhd. Tahssin Altabbaa and Murat Uysal). *IEEE Transactions on Signal Processing*, Vol. 67, No. 6, pp. 1550 - 1565, March 15, 2019.
- “Model Predictive Control for Smart Grids with Multiple Electric-Vehicle Charging Stations,” (with Y. Shi, Hoang D. Tuan, Andrey V. Savkin and Trung Q. Duong). *IEEE Transactions on Smart Grid*, Vol. 10, No. 2, pp. 2127 - 2136, March 2019
- “Influence of Conformist and Manipulative Behaviors on Public Opinion,” (with Seyed Rasoul Etesami, Sadegh Bolouki, Angelia Nedich and Tamer Başar). *IEEE Transactions on Control of Network Systems*, Vol. 6, No. 1, pp. 202 - 214, March 2019.
- “Energy-Efficient Power Allocation in Uplink mmWave Massive MIMO with NOMA,” (with Meng Zeng, Wanming Hao, and Octavia A. Dobre). *IEEE Transactions on Vehicular Technology*, Vol. 63, No. 3, pp. 3000 - 3004, March 2019.
- “The Low-Bit-Rate Hybrid Power Line/Wireless Single-Relay Channel,” (with Victor Fernandes, Weiler A. Finamore and Moisés V. Ribeiro). *IEEE Systems Journal*, Vol. 13, No. 1, pp. 98 - 109, March 2019.
- “Amplitude Constrained MIMO Channels: Properties of Optimal Input Distributions and Bounds on the Capacity,” (with Alex Dytso, Mario Goldenbaum and Shlomo Shamai). *Entropy*, Vol. 21, No. 2, Article 200, February 2019. [Open access.]
- “Impact of Non-orthogonal Multiple Access on the Offloading of Mobile Edge Computing,” (with Zhiguo Ding and Pingzhi Fan). *IEEE Transactions on Communications*, Vol. 67, No. 1, pp. 375 - 390, January 2019.
- “Managing Price Uncertainty in Prosumer-Centric Energy Trading: A Prospect-Theoretic Stackelberg Game Approach,” (with Georges El Rahi, S. Rasoul Etesami, Walid Saad and Narayan B. Mandayam). *IEEE Transactions on Smart Grid*, Vol. 10, No. 1, pp. 702 - 713, January 2019.
- “Fundamentals of Wireless Information and Power Transfer: From RF Energy Harvester Models to Signal and System Designs,” (with Bruno Clerckx, Rui Zhang, Robert Schober, Derrick Wing Kwan Ng and Dong In Kim). *IEEE Journal on Selected Areas in Communications - Issue on Wireless Transmission of Information and Power*, Vol. 37, No. 1, pp. 4 - 33, January 2019.
- “Load Flow Balancing and Transient Stability Analysis in Renewable Integrated Power Grids,” (with Muhammad Adnan, Muhammad Tariq and Zhenyu Zhou). *International Journal of Electrical Power and Energy Systems*, Vol. 104, pp. 744 - 771, January 2019.

- “State-Dependent Gaussian Multiple Access Channels: New Outer Bounds and Capacity Results,” (with Wei Yang, Yingbin Liang and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 64, No. 12, pp. 7866 - 7882, December 2018.
- “Data Center Demand Response with On-site Renewable Generation: A Bargaining Approach,” (with Xuanyu Cao and Junshan Zhang). *IEEE/ACM Transactions on Networking*, Vol. 26, No. 6, pp. 2707 - 2720, December 2018.
- “A Distributed Approach to Improving Spectral Efficiency in Uplink Device-to-Device-Enabled Cloud Radio Access Networks,” (with Yaohua Sun and Mugen Peng). *IEEE Transactions on Communications*, Vol. 66, No. 12, pp. 6511 - 6526, December 2018.
- “Secrecy Analysis of Distributed CDD-Based Cooperative Systems with Deliberate Interference,” (with Kyeong Jin Kim, Hongwu Liu, Marco Di Renzo and Philip V. Orlik). *IEEE Transactions on Wireless Communications*, Vol. 17, No. 12, pp. 8077 - 8093, December 2018.
- “Decode-and-Forward Relaying for Cooperative NOMA Systems with Direct Links,” (with Hongwu Liu, Zhiguo Ding, Kyeong Jin Kim and Kyung Sup Kwak). *IEEE Transactions on Wireless Communications*, Vol. 17, No. 12, pp. 7866 - 7822, December 2018.
- “Delay Minimization for NOMA-MEC Offloading,” (with Zhiguo Ding, Derrick Wing Kwan Ng and Robert Schober). *IEEE Signal Processing Letters*, Vol. 25, No. 12, pp. 1875 - 1879, December 2018.
- “Peer-to-Peer Energy Trading with Sustainable User Participation: A Game Theoretic Approach,” (with Wayes Tushar, Tapan Kumar Saha, Chau Yuen, Paul Liddell, Richard Bean and Kristin L Wood). *IEEE Access*, Vol. 6, No. 1, pp. 62932 - 62943, December 2018.
- “Analytical Properties of Generalized Gaussian Distributions,” (with Alex Dytso, Ronit Bustin and Shlomo Shamai). *Journal of Statistical Distributions and Applications*, Vol. 5, No. 6, 2018. [Open access article.]
- “Privacy-Aware Smart Metering: Progress and Challenges,” (with Giulio Giaconi and Deniz Gündüz). *IEEE Signal Processing Magazine*, Vol. 25, No. 6, pp. 59 - 78, November 2018.
- “Probabilistic Modeling of Pseudorabies Virus Infection in a Neural Circuit,” (with Siamak Sorooshyari and Matthew Taylor). *Journal of Computational Biology*, Vol 25, No. 11, pp. 1231 - 1246, November 2018.
- “Differentiated Service-Aware Group Paging for Massive Machine-Type Communications,” (with Wei Cao, Alex Dytso, Gang Feng and Zhi Chen). *IEEE Transactions on Communications*, Vol. 66, No. 11, pp. 5444 - 5456, November 2018.
- “Attacker-Centric View of a Detection Game Against Advanced Persistent Threats,” (with Liang Xiao, Dongjin Xu and Narayan B. Mandayam). *IEEE Transactions on Mobile Computing*, Vol. 17, No. 11, pp. 2512 - 2523, November 2018.
- “Scaling Probabilistic Tensor Subspace Learning to Massive Data,” (with Lei Cheng and Yik-Chung Wu). *IEEE Transactions on Signal Processing*, Vol 66, No. 21, pp. 5534 - 5548, November 1, 2018.
- “On the Efficiency of Online Social Learning Networks,” (with Christopher G. Brinton, Swapna Bucapatnam, Liang Zheng, Da Cao, Andrew Lan, Felix Ming Fai Wong, Sangtae Ha and Mung Chiang). *IEEE/ACM Transactions on Networking*, Vol. 26, No. 5, pp. 2076 - 2089, October 2018.
- “Ultrareliable and Low-Latency Wireless Communication: Tail, Risk and Scale,” (with Mehdi Bennis and Mérouane Debbah). *Proceedings of the IEEE*, Vol. 106, No. 10, pp. 1834 - 1853, October 2018.
- “Design of Network Coding for Wireless Broadcast and Multicast with Optimal Decoders,” (with Guosen Yue, Kai Yang and Shenjie Zhao). *IEEE Transactions on Wireless Communications*, Vol. 17, No. 10, pp. 6944 - 6957, October 2018.
- *“NOMA Assisted Wireless Caching: Strategies and Performance Analysis,” (with Zhiguo Ding, Pingzhi Fan, George K. Karagiannidis and Robert Schober). *IEEE Transactions on Communications*, Vol. 66, No. 10, pp. 4854 - 4876, October 2018.
- “A Hybrid Power Line/Wireless Dual-Hop System with Energy Harvesting Relay,” (with Victor Fernandes and Moisés V. Ribeiro). *IEEE Internet of Things Journal - Special Issue on Wireless Energy Harvesting for Internet of Things*, Vol. 5, No. 5, pp. 4201 - 4211, October 2018.

- “Two-dimensional Anti-jamming Mobile Communication Based on Reinforcement Learning,” (with Liang Xiao, Guoan Han, Donghua Jiang, Hongzi Zhu and Yanyong Zhang). *IEEE Transactions on Vehicular Technology*, Vol. 67, No. 10, pp. 9499 - 9512, October 2018.
- “Effect of Backhaul Constraints on Uplink Femtocell Networks,” (with Shirin Jalali and Zolfa Zeinalpour-Yazdi). *IEEE Transactions on Vehicular Technology*, Vol. 67, No. 10, pp. 9931 - 9946, October 2018.
- “On the Coexistence between Full-Duplex and NOMA,” (with Zhiguo Ding and Pingzhi Fan). *IEEE Wireless Communications Letters*, Vol. 7, No. 5, pp. 692 - 695, October 2018
- “Beta-Beta Bounds: Finite-Blocklength Analog of the Golden Formula,” (with Wei Yang, Austin Collins, Giuseppe Durisi and Yury Polyanskiy). *IEEE Transactions on Information Theory*, Vol. 64, No. 9, pp. 6236 - 6256, September 2018.
- “Caching with Time-Varying Popularity Profiles: A Learning-Based Perspective,” (with Bettagere N. Bharath, Kyatsandra G. Nagananda and Deniz Gündüz). *IEEE Transactions on Communications*, Vol. 66, No. 9, pp. 3837 - 3847, September 2018.
- “Energy Efficient Dynamic Resource Optimization in NOMA Systems,” (with Haijun Zhang, Baobao Wang, Chunxiao Jiang, Keping Long, A. Nallanathan and Victor C. M. Leung). *IEEE Transactions on Wireless Communications*, Vol. 17, No. 9, pp. 5671 - 5683, September 2018.
- “Internet of Things for Green Building Management: Disruptive Innovations Through Low-Cost Sensor Technology and Artificial Intelligence,” (with Wayes Tushar, Nipun Wijerathne, Wen-Tai Li, Chau Yuen, Tapan Saha and Kristin L. Wood). *IEEE Signal Processing Magazine*, Vol. 35, No. 5, pp. 100 - 110, September 2018.
- “Approaches to Secure Inference in the Internet of Things: Performance Bounds, Algorithms, and Effective Attacks on IoT Sensor Networks,” (with Jiangfan Zhang and Rick S. Blum). *IEEE Signal Processing Magazine*, Vol. 35, No. 5, pp. 50 - 63, September 2018.
- “Low-Latency Multiuser Two-Way Wireless Relaying for Spectral and Energy Efficiencies,” (with Zhichao Sheng, Hoang D. Tuan, Trung Q. Duong and Yong Fang). *IEEE Transactions on Signal Processing*, Vol. 66, No. 16, pp. 4362 - 4376, August 15, 2018.
- “Coded Joint Pushing and Caching with Asynchronous User Requests,” (with Yawei Lu and Wei Chen). *IEEE Journal on Selected Areas in Communications - Issue on Caching for Communication Systems and Networks*, Vol. 36, No. 8, pp. 1843 - 1856, August 2018.
- “Game Theory for Big Data Processing: Multi-Leader Multi-Follower Game-based ADMM,” (with Zijie Zheng, Lingyang Song, Zhu Han and Geoffrey Ye Li). *IEEE Transactions on Signal Processing*, Vol. 66, No. 15, pp. 3933 - 3945, August 1, 2018.
- “Energy Efficient Pushing in AWGN Channels Based on Content Request Delay Information,” (with Wei Huang and Wei Chen). *IEEE Transactions on Communications*, Vol. 66, No. 8, pp. 3667 - 3682, August 2018.
- “Diversity Enhancing Multiple-Mode OFDM with Index Modulation,” (with Qiang Li, Miaowen Wen, Ertuğrul Başar, Beixiong Zheng and Fangjiong Chen). *IEEE Transactions on Communications*, Vol. 66, No. 8, pp. 3653 - 3666, August 2018.
- “Low-Latency Millimeter-Wave Communications: Traffic Dispersion or Network Densification?” (with Guang Yang and Ming Xiao). *IEEE Transactions on Communications*, Vol. 66, No. 8, pp. 3526 - 3539, August 2018.
- “Social-Aware User Cooperation in Full-Duplex and Half-Duplex Multi-Antenna Systems,” (with Mojtaba Vaezi, Hazer Inaltekin, Wonjae Shin and Junshan Zhang). *IEEE Transactions on Communications*, Vol. 66, No. 8, pp. 3309 - 3321, August 2018.
- “A Stackelberg Game Approach to Proactive Caching in Large-Scale Mobile Edge Networks,” (with Zijie Zheng, Lingyang Song, Zhu Han and Geoffrey Ye Li). *IEEE Transactions on Wireless Communications*, Vol. 17, No. 8, pp. 5198 - 5211, August 2018.
- “A Virtual-Queue Based Algorithm for Constrained Online Convex Optimization with Applications to Data Center Resource Allocation,” (with Xuanyu Cao and Junshan Zhang). *IEEE Journal on Selected Topics in Signal Processing - Issue on Signal and Information Processing for Critical Infrastructures*, Vol. 12, No. 4, pp. 703 - 716, August 2018.

- “Joint Energy Procurement and Demand Response towards Optimal Deployment of Renewables,” (with Xuanyu Cao and Junshan Zhang). *IEEE Journal on Selected Topics in Signal Processing - Issue on Signal and Information Processing for Critical Infrastructures*, Vol. 12, No. 4, pp. 657 - 672, August 2018.
- “Stochastic Games for Smart Grid Energy Management with Prospect Prosumers,” (with Seyed Rasoul Etesami, Walid Saad and Narayan Mandayam). *IEEE Transactions on Automatic Control*, Vol. 63, No. 8, pp. 2327 - 2342, August 2018.
- “Secret-Key Generation and Convexity of the Rate Region Using Infinite Compound Sources,” (with Nima Tavangaran, Rafael F. Schaefer and Holger Boche). *IEEE Transactions on Information Forensics and Security*, Vol. 13, No. 8, pp. 2075 - 2086, August 2018.
- “Beamforming Optimization for Physical Layer Security in MISO Wireless Networks,” (with Zhichao Sheng, Hoang Duong Tuan and Trung Q. Duong). *IEEE Transactions on Signal Processing*, Vol. 66, No. 14, pp. 3710 - 3723, July 15, 2018.
- “Optimal Training Design for MIMO Systems with General Power Constraints,” (with Shuai Wang, Shaodan Ma, Chengwen Xing, Shiqi Gong and Jianping An). *IEEE Transactions on Signal Processing*, Vol. 66, No. 14, pp. 3649 - 3664, July 15, 2018.
- “Secrecy Performance of Finite-Sized In-Band Selective Relaying Systems with Unreliable Backhaul and Cooperative Eavesdroppers,” (with Hongwu Liu, Phee Lep Yeoh, Kyeong Jin Kim and Philip V. Orlik). *IEEE Journal on Selected Areas in Communications - Issue on Physical Layer Security for 5G Wireless Networks*, Vol. 36, No.7, pp. 1499 - 1516, July 2018.
- “Analytical Properties of Shannon’s Capacity of Arbitrarily Varying Channels under List Decoding: Super-Additivity and Discontinuity Behavior,” (with Holger Boche and Rafael F. Schaefer). *Problems of Information Transmission*, Vol. 54, No. 3, pp. 199 - 228, July 2018.
- “Network Operation Strategies for Efficient Localization and Navigation,” (with Moe Z. Win, Wenhan Dai, Yuan Shen and George Christikos). *Proceedings of the IEEE*, Vol. 106, No. 7, pp. 1224 - 1254, July 2018.
- “A Tractable Framework for the Analysis of General Multi-Tier Heterogeneous Cellular Networks,” (with Serkan Ak and Hazer Inaltekin). *IEEE Transactions on Communications*, Vol. 66, No. 4, pp. 3151 - 3171, July 2018.
- “Mixed Quality of Service in Cell-Free Massive MIMO,” (with Manijeh Bashar, Kanapathippillai Cumanan, Alister G. Burr and Hien Quoc Ngo). *IEEE Communications Letters*, Vol. 22, No. 7, pp. 1494 - 1497, July 2018.
- “Strong Secrecy for Interference Channels Based on Channel Resolvability,” (with Zhao Wang, Rafael F. Schaefer, Mikael Skoglund and Ming Xiao). *IEEE Transactions on Information Theory*, Vol. 64, No. 7, pp. 5110 - 5130, July 2018.
- “Transforming Energy Networks via Peer to Peer Energy Trading: The Potential of Game Theoretic Approaches,” (with Wayes Tushar, Chau Yuen, Hamed Mohsenian-Rad, Tapan Saha and Kristin L. Wood). *IEEE Signal Processing Magazine*, Vol 35, No. 4, pp. 90 - 111, July 2018.
- “Outage-Aware Secure Beamforming in MISO Wireless Interference Networks,” (with Zhichao Sheng, Hoang Duong Tuan and Trung Q. Duong). *IEEE Signal Processing Letters*, Vol 25, No. 7, pp. 956 - 960, July 2018.
- “Is Self-Interference in Full-Duplex Communications a Foe or a Friend?” (with Animesh Yadav and Octavia A. Dobre). *IEEE Signal Processing Letters*, Vol 25, No. 7, pp. 951 - 955, July 2018.
- “Cyber Insurance for Heterogeneous Wireless Networks,” (with Xiao Lu, Dusit Niyato, Hai Jiang and Ping Wang). *IEEE Communications Magazine - Special Issue on Heterogeneous Ultra Dense Networks*, Vol. 56, No. 6, pp. 21 - 27, June 2018.
- “Power Allocation for Energy Efficiency and Secrecy of Wireless Interference Networks,” (with Zhichao Sheng, Hoang Duong Tuan, Ali Arshad Nasir and Trung Q. Duong). *IEEE Transactions on Wireless Communications*, Vol. 17, No. 6, pp. 3737 - 3751, June 2018.
- “Impact of Antenna Correlation on Full-Duplex Two-Way Massive MIMO Relaying Systems,” (with Junjuan Feng, Shaodan Ma and Guanghua Yang). *IEEE Transactions on Wireless Communications*, Vol. 17, No. 6, pp. 3572 - 3587, June 2018.

- “Optimal Throughput Fairness Tradeoffs for Downlink Non-Orthogonal Multiple Access over Fading Channels,” (with Hong Xing, Yuanwei Liu, Arumugam Nallanathan and Zhiguo Ding). *IEEE Transactions on Wireless Communications*, Vol. 17, No. 6, pp. 3556 - 3571, June 2018.
- “Downlink Beamforming for Energy-Efficient Heterogeneous Networks with Massive MIMO and Small Cells,” (with Long D. Nguyen, Hoang D. Tuan, Trung Q. Duong and Octavia A. Dobre). *IEEE Transactions on Wireless Communications*, Vol. 17, No. 5, pp. 3386 - 3400, May 2018.
- “Electricity Theft Detection and Localization in Grid-tied Microgrids,” (with Muhammad Tariq). *IEEE Transactions on Smart Grid*, Vol. 9, No. 3, pp. 1920 - 1929, May 2018.
- “Multi-hop Cooperative Caching in Social IoT Using Matching Theory,” (with Li Wang, Huaqing Wu, Zhu Han and Ping Zhang). *IEEE Transactions on Wireless Communications*, Vol. 17, No. 4, pp. 2127 - 2145, April 2018.
- “Cooperative Wireless Powered Communication Networks with Interference Harvesting,” (with Wonjae Shin, Mojtaba Vaezi and Jungwoo Lee). *IEEE Transactions on Vehicular Technology*, Vol. 67, No. 4, pp. 3701 - 3705, April 2018. [Recipient of the Best Paper Award of the Ministry of Science and ICT of Korea (1st prize)]
- “Reinforcement Learning-based NOMA Power Allocation in the Presence of Smart Jamming,” (with Liang Xiao, Yanda Li, Canhuang Dai and Huaiyu Dai). *IEEE Transactions on Vehicular Technology*, Vol. 67, No. 4, pp. 3377 - 3389, April 2018.
- “Analyses of the Incomplete Low-Bit-Rate Hybrid PLC-Wireless Single-Relay Channel,” (with Victor Fernandes and Moisés V. Ribeiro). *IEEE Internet of Things Journal*, Vol. 5, No. 2, pp. 917 - 929, April 2018.
- “Multiobjective Optimization for Demand Side Management Program in Smart Grid” (with Dan Li, Hongjian Sun and Wei-Yu Chiu). *IEEE Transactions on Industrial Informatics*, Vol. 14, No. 4, pp. 1482 -1490, April 2018.
- “Performance Bounds for Finite Moving Average Tests in Transient Change Detection,” (with Daniel Egea-Roca, Gonzalo Seco-Granados and José A. López-Salcedo). *IEEE Transactions on Signal Processing*, Vol. 66, No. 6, pp. 1594 - 1606, March 15, 2018.
- “Degraded Broadcast Channel with Secrecy Outside a Bounded Range,” (with Shaofeng Zou, Yingbin Liang, Lifeng Lai and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 64, No. 3, pp. 2104 - 2120, March 2018.
- “On the Minimum Mean p -th Error in Gaussian Noise Channels and its Applications,” (with Alex Dytso, Ronit Bustin, Daniela Tuninetti, Natasha Devroye and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 64, No. 3, pp. 2012 - 2037, March 2018.
- “Multicast Pushing with Content Request Delay Information,” (with Yawei Lu and Wei Chen). *IEEE Transactions on Communications*, Vol. 66, No. 3, pp. 1078 - 1092, March 2018.
- “Community-structured Evolutionary Game for Privacy Protection in Social Networks,” (with Jun Du, Chunxiao Jiang, Kwang-Cheng Chen and Yong Ren). *IEEE Transactions on Information Forensics and Security*, Vol. 13, No. 3, pp. 574 - 589, March 2018.
- “Outage Detection Using Load and Line Flow Measurements in Power Distribution Systems,” (with Raffi Sevlain, Yue Zhao, Ram Rajagopal and Andrea Goldsmith). *IEEE Transactions on Power Systems*, Vol. 33, No. 2, pp. 2053 - 2069, March 2018.
- “Distributed Low-Rank Adaptive Estimation Algorithms Based on Alternating Optimization,” (with Songcen Xu and Rodrigo de Lamare). *Signal Processing*, Vol. 144, pp. 41 - 51, March 2018.
- “Energy-Efficient Power Allocation for MIMO-NOMA with Multiple Users in a Cluster,” (with Octavia Dobre, Ming Zeng and Animesh Yadav). *IEEE Access - Special Section on Non-Orthogonal Multiple Access for 5G Systems*, Vol. 6, No. 1, pp. 5170 - 5181, 2018
- *“Secure Broadcasting Using Independent Secret Keys,” (with Rafael F. Schaefer and Ashish Khisti). *IEEE Transactions on Communications*, Vol. 66, No. 2, pp. 644 - 661, February 2018.
- “Authenticating Users through Fine-grained Channel Information,” (with Hongbo Liu, Yan Wang, Jian Liu, Jie Yang and Yingying Chen). *IEEE Transactions on Mobile Computing*, Vol. 17, No. 2, pp. 251 - 264, February 2018.

- “Mobile Crowdsensing Games in Vehicular Networks,” (with Liang Xiao, Tianhua Chen, Caixia Xie and Huaiyu Dai). *IEEE Transactions on Vehicular Technology - Connected Vehicle Series*, Vol. 62, No. 2, pp. 1535 - 1545, February 2018.
- “Game Theoretic Approaches to Massive Data Processing in Wireless Networks,” (with Zijie Zheng, Lingyang Song, Zhu Han and Geoffrey Ye Li). *IEEE Wireless Communications - Special Issue on Wireless Big Data: Technologies and Applications*, Vol. 25, No. 1, pp. 98 - 104, February 2018.
- “Big Data Driven Wireless Communications: A Human-in-the-loop Pushing Technique for 5G Systems,” (with Qi Yan and Wei Chen). *IEEE Wireless Communications - Special Issue on Wireless Big Data: Technologies and Applications*, Vol. 25, No. 1, pp. 64 - 69, February 2018.
- “Joint Sensor and Relay Power Control in Tracking Gaussian Mixture Targets by Wireless Sensor Networks,” (with Johann A. Bengua, Hoang D. Tuan and Trung Duong). *IEEE Transactions on Signal Processing*, Vol. 66, No. 2, pp. 492 - 506, January 15, 2018.
- “On Communication through a Gaussian Channel with an MMSE Disturbance Constraint,” (with Alex Dytso, Ronit Bustin, Daniela Tuninetti, Natasha Devroye and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 64, No. 1, pp. 513 - 530, January 2018.
- “Smart Meter Privacy with Renewable Energy and an Energy Storage Device,” (with Giulio Giacconi and Deniz Gündüz). *IEEE Transactions on Information Forensics and Security*, Vol. 13, No. 1, pp. 129 - 142, January 2018.
- “Fronthaul-Aware Software-Defined Wireless Networks: Resource Allocation and User Scheduling,” (with Chen-Feng Liu, Sumudu Samarakoon and Mehdi Bennis). *IEEE Transactions on Wireless Communications*, Vol. 17, No. 1, pp. 533 - 547, January 2018.
- “A Secure Mobile Crowdsensing Game with Deep Reinforcement Learning,” (with Liang Xiao, Yanda Li, Guoan Han and Huaiyu Dai). *IEEE Transactions on Information Forensics and Security*, Vol. 13, No. 1, pp. 35 - 47, January 2018.
- “Cognitive Hierarchy Theory for Distributed Resource Allocation in the Internet of Things,” (with Nof Abuzainab, Walid Saad and Choong Seon Hong). *IEEE Transactions on Wireless Communications*, Vol. 16, No. 12, pp. 7687 - 7702, December 2017.
- “Performance Analysis of Distributed Single Carrier Systems with Distributed Cyclic Delay Diversity,” (with Kyeong Jin Kim, Marco Di Renzo, Hongwu Liu and Philip V. Orlik). *IEEE Transactions on Communications*, Vol. 65, No. 12, pp. 5514 - 5528, December 2017.
- “Precoder Design for Signal Superposition in MIMO-NOMA Multicell Networks,” (with Van-Dinh Nguyen, Hoang D. Tuan, Trung Q. Duong and Oh-Soon Shin). *IEEE Journal on Selected Areas in Communications - Special Issue on Non-Orthogonal Multiple Access for 5G Systems*, Vol. 35, No. 12, pp. 2681 - 2695, December 2017.
- “Secrecy Performance of Finite-Sized Cooperative Full-Duplex Relay Systems with Unreliable Backhauls,” (with Hongwu Liu, Kyeong Jin Kim and Kyung Sup Kwak). *IEEE Transactions on Signal Processing*, Vol. 65, No. 23, pp. 6185 - 6200, December 1, 2017.
- “Joint Fractional Time Allocation and Beamforming for Downlink Multiuser MISO Systems,” (with Van-Dinh Nguyen, Hoang Duong Tuan, Trung Q. Duong and Oh-Soon Shin). *IEEE Communications Letters*, Vol. 21, No. 12, pp. 2650 - 2653, December 2017
- “Relay-Aided NOMA in Uplink Cellular Networks,” (with Wonjae Shin, Heecheol Yang, Mojtaba Vaezi and Jungwoo Lee). *IEEE Signal Processing Letters*, Vol. 24, No. 12, pp. 1842 - 1846, December 2017.
- “Information Guided Precoding for OFDM,” (with Qiang Li, Miaowen Wen and Fangjiong Chen). *IEEE Access - Special Section on Index Modulation*, Vol. 5, No. 1, pp. 19644 - 19656, December 2017.
- “Nonparametric Detection of Anomalous Data Streams,” (with Shaofeng Zou, Yingbin Liang and Xinghua Shi). *IEEE Transactions on Signal Processing*, Vol. 65, No. 21, pp. 5785 - 5797, November 1, 2017.
- “Secure Massive MIMO Relaying Systems in a Poisson Field of Eavesdroppers,” (with Tiep M. Hoang, Hoang Duong Tuan and Trung Q. Duong). *IEEE Transactions on Communications*, Vol. 65, No. 11, pp. 4857 - 4870, November 2017.

- “Superposition Signaling in Broadcast Interference Networks,” (with Hoang Duong Tuan, Ho Huu Minh Tam, Ha H. Nguyen and Trung Q. Duong). *IEEE Transactions on Communications*, Vol. 65, No. 11, pp. 4646 - 4656, November 2017.
- “Secure and Energy-Efficient Beamforming for Simultaneous Information and Energy Transfer,” (with Ali A. Nasir, Hoang D. Tuan and Trung Q. Duong). *IEEE Transactions on Wireless Communications*, Vol. 16, No. 11, pp. 7523 - 7537, November 2017.
- “Compression-Based Compressed Sensing,” (with Farideh Ebrahim Rezagah, Shirin Jalali and Elza Erkip). *IEEE Transactions on Information Theory*, Vol. 63, No. 10, pp. 6735 - 6752, October 2017.
- “Optimal Beamforming for Gaussian MIMO Wiretap Channels with Two Transmit Antennas,” (with Mojtaba Vaezi and Wonjae Shin). *IEEE Transactions on Wireless Communications*, Vol. 16, No. 10, pp. 6726 - 6735, October 2017.
- “Joint Power Allocation and Beamforming for Energy-Efficient Two-Way Multi-Relay Communications,” (with Zhichao Sheng, Hoang D. Tuan and Trung Q. Duong). *IEEE Transactions on Wireless Communications*, Vol. 16, No. 10, pp. 6660 - 6671, October 2017.
- “Nonparametric Detection of Geometric Structures over Networks,” (with Shaofeng Zou and Yingbin Liang). *IEEE Transactions on Signal Processing*, Vol. 65, No. 19, pp. 5034 - 5046, October 1, 2017.
- “Capacity Comparison between MIMO-NOMA and MIMO-OMA with Multiple Users in a Cluster,” (with Ming Zeng, Animesh Yadav, Octavia A. Dobre and Georgios I. Tsiropoulos). *IEEE Journal on Selected Areas in Communications - Special Issue on Non-Orthogonal Multiple Access for 5G Systems*, Vol. 35, No. 10, pp. 2413 - 2424, October 2017.
- “Non-Orthogonal Multiple Access in Multi-Cell Networks: Theory, Performance, and Practical Challenges,” (with Wonjae Shin, Mojtaba Vaezi, Byungju Lee, David J. Love and Jungwoo Lee). *IEEE Communications Magazine*, Vol. 55, No. 10, pp. 176 - 183, October 2017. [Recipient of the 2020 IEEE Communications Society Fred W. Ellersick Prize.]
- “Energy Efficient User Association and Power Allocation in Ultra Dense Millimeter Wave Networks with SWIPT,” (with Haijun Zhang, Site Huang, Chunxiao Jiang, Keping Long and Victor C. M. Leung). *IEEE Journal on Selected Areas in Communications - Issue on Millimeter Wave Communications for Future Mobile Networks*, Vol. 35, No. 9, pp. 1936 - 1947, September 2017.
- “Feedback Enhances Simultaneous Wireless Information and Energy Transmission in Multiple Access Channels,” (with Selma Belhadj Amor, Samir M. Perlaza and Ioannis Krikidis). *IEEE Transactions on Information Theory*, Vol. 63, No. 8, pp. 5244 - 5265, August 2017.
- “A View of Information-Estimation Relations in Gaussian Networks,” (with Alex Dytso, Ronit Bustin and Shlomo Shamai). *Entropy - Special Issue on Network Information Theory*, Vol. 19, No. 8, Article 409, August 2017. [open access]
- “Energy Efficient Wireless Pushing with Request Delay Information and Delivery Delay Constraint,” (with Wei Huang and Wei Chen). *IEEE Access - Special Section on Wireless Caching Techniques for 5G*, Vol. 5, pp. 15428 - 15441, 2017. [open access]
- “On the Sum Rate of MIMO-NOMA and MIMO-OMA Systems,” (with Ming Zeng, Animesh Yadav, Octavia A. Dobre and Georgios I. Tsiropoulos). *IEEE Wireless Communications Letters*, Vol. 6, No. 4, pp. 534 - 537, August 2017.
- “NOMA Meets Finite Resolution Analog Beamforming in Massive MIMO and Millimeter-Wave Networks,” (with Zhiguo Ding, Linglong Dai and Robert Schober). *IEEE Communications Letters*, Vol. 21, No. 8, pp. 1879 - 1882, August 2017.
- “Resource Management in Non-orthogonal Multiple Access Networks for 5G and Beyond,” (with Lingyang Song, Yongchui Li and Zhiguo Ding). *IEEE Network - Special Issue on Ultra-Dense Heterogeneous Small Cell Deployment in 5G and Beyond*, Vol. 31, No. 4, pp. 8 -14, July - August 2017.
- “Enabling Self-healing Smart Grid Through Jamming Resilient Local Controller Switching,” (with Hongbo Liu, Yingying Chen, Mooi Choo Chuah and Jie Yang). *IEEE Transactions on Dependable and Secure Computing*, Vol. 14, No.4, pp. 377 - 391, July - August 2017.
- “Minimum Sparsity of Unobservable Power Network Attacks,” (with Yue Zhao and Andrea Goldsmith). *IEEE Transactions on Automatic Control*, Vol. 62, No. 7, pp. 3354 - 3368, July 2017.

- “Resilience of Energy Infrastructure and Services: Modeling, Data Analytics and Metrics,” (with Chuanyi Ji and Yun Wei). *Proceedings of the IEEE - Special Issue on Power Grid Resilience*, Vol. 105, No.7, pp. 1354 - 1366, July 2017.
- “Price Discrimination for Energy Trading in Smart Grid: A Game Theoretic Approach,” (with Wayes Tushar, Chau Yuen and David B. Smith). *IEEE Transactions on Smart Grid*, Vol. 8, No. 4, pp. 1790 - 1801, July 2017.
- “On the Spectral Efficiency and Security Enhancements of NOMA Assisted Multicast-Unicast Streaming,” (with Zhiguo Ding, Zhongyuan Zhao and Mugen Peng). *IEEE Transactions on Communications*, Vol. 65, No. 7, pp. 3151 - 3163, July 2017.
- “Cyclic Interference Alignment for Full-Duplex Multi-Antenna Cellular Networks,” (with Wonjae Shin, Jong-Bu Lim, Hyun-Ho Choi and Jungwoo Lee). *IEEE Transactions on Communications*, Vol. 65, No. 6, pp. 2657 - 2671, June 2017.
- “Impact of Imperfect Source-to-Relay CSI in Amplify-and-Forward Relay Networks,” (with Jia-Chin Lin, Han-Kui Chang and Meng-Lin Ku). *IEEE Transactions on Vehicular Technology*, Vol. 66, No.6, pp. 5056 - 5069, June 2017.
- “Universal Compressed Sensing for Almost Lossless Recovery,” (with Shirin Jalali). *IEEE Transactions on Information Theory*, Vol. 63, No. 5, pp. 2933 - 2953, May 2017.
- “Random Beamforming in Millimeter-Wave NOMA Networks,” (with Zhiguo Ding and Pingzhi Fan). *IEEE Access - Special Issue on Physical and Medium Access Control Layer Advances in 5G Wireless Networks*, Vol. 5, No. 1, pp. 7667 - 7681, 2017.
- “Spectral and Energy Efficiencies in Full-Duplex Wireless Information and Power Transfer,” (with Van-Dinh Nguyen, Trung Q. Duong, Hoang Duong Tuan and Oh-Soon Shin). *IEEE Transactions on Communications*, Vol. 65, No. 5, pp. 2220 - 2233, May 2017.
- “MIMO Energy Harvesting in Full-Duplex Multi-user Networks,” (with Huu H. Minh Tam, Hoang Duong Tuan, Ali Arshad Nasir and Trung Q. Duong). *IEEE Transactions on Wireless Communications*, Vol. 16, No. 5, pp. 3282 - 3297, May 2017.
- “QoS-Constrained Relay Control for Full-Duplex Relaying with SWIPT,” (with Hongwu Liu, Kyeong Jin Kim and Kyung Sup Kwak). *IEEE Transactions on Wireless Communications*, Vol. 16, No. 5, pp. 2936 - 2949, May 2017.
- “Mobile Data Trading: Behavioral Economics Analysis and Algorithm Design,” (with Junlin Yu, Man Hon Cheung and Jianwei Huang). *IEEE Journal on Selected Areas in Communications - Special Issue on Human-In-The-Loop Mobile Networks*, Vol. 35, No. 4, pp. 994 - 1005, April 2017.
- “Content Pushing with Request Delay Information,” (with Wei Chen). *IEEE Transactions on Communications*, Vol. 65, No. 3, pp. 1146 - 1161, March 2017.
- “Cloud Storage Defense Against Advanced Persistent Threats: A Prospect Theoretic Study,” (with Liang Xiao, Dongjin Xu, Caixia Xie and Narayan B. Mandayam). *IEEE Journal on Selected Areas in Communications - Special Issue on Game Theory for Networks*, Vol. 35, No. 3, pp. 534 - 544, March 2017.
- “On Simultaneously Generating Multiple Keys in a Joint Source-Channel Model,” (with Wenwen Tu, Mario Goldenbaum and Lifeng Lai). *IEEE Transactions on Information Forensics and Security*, Vol. 12, No.2, pp. 298 - 308, February 2017.
- “Application of Non-orthogonal Multiple Access in LTE and 5G Networks,” (with Zhiguo Ding, Yuanwei Liu, Jinho Choi, Qi Sun, Maged Elkashlan and Chih-Lin I). *IEEE Communications Magazine - Feature Topic on LTE Evolution*, Vol. 55, No. 2, pp. 185 - 191, February 2017.
- “Beamforming Design for Wireless Information and Power Transfer Systems: Receive Power-Splitting Versus Transmit Time-Switching,” (with Ali Arshad Nasir, Hoang Duong Tuan, Duy Trong Ngo and Trung Quang Duong). *IEEE Transactions on Communications*, Vol. 65, No. 2, pp. 876 - 889, February 2017.
- “Joint Load Balancing and Interference Management for Small-Cell Heterogeneous Networks with Limited Backhaul Capacity,” (with Huu H. Minh Tam, Hoang Dong Tuan, Duy T. Ngo and Trung Q. Duong). *IEEE Transactions on Wireless Communications*, Vol.16, No. 2, pp. 872 - 884, February 2017.

- “MIMO Beamforming for Secure and Energy-Efficient Wireless Communication,” (with Nguyen T. Nghia, Hoang D. Tuan and Trung Q. Duong). *IEEE Signal Processing Letters*, Vol. 24, No. 2, pp. 236 - 239, February 2017.
- “Secrecy Rate Beamforming for Multi-cell Networks with Information and Energy Harvesting,” (with Ali Arshad Nasir, Hoang Duong Tuan, Trung Quang Duong). *IEEE Transactions on Signal Processing*, Vol. 65, No. 3, pp. 677 - 689, February 1, 2017.
- “Probabilistic Tensor Canonical Polyadic Decomposition with Orthogonal Factors,” (with Lei Cheng and Yik-Chung Wu). *IEEE Transactions on Signal Processing*, Vol. 65, No. 3, pp. 663 - 676, February 1, 2017.
- “Coordinated Beamforming for Multi-Cell MIMO-NOMA,” (with Wonjae Shin, Mojtaba Vaezi, Byungju Lee, David J. Love and Jungwoo Lee). *IEEE Communications Letters*, Vol. 21, No. 1, pp. 84 - 87, January 2017.
- “Wireless Physical Layer Security,” (with Rafael F. Schaefer). *Proceedings of the National Academy of Sciences of the U.S.A.*, Vol. 114, No.1, pp. 19 - 26, January 3, 2017.
- “Learning-Based Distributed Detection-Estimation in Sensor Networks with Unknown Sensor Defects,” (with Qing Zhou, Di Li, Soumya Kar, Lauren Huie and Shuguang Cui). *IEEE Transactions on Signal Processing*, Vol. 65, No. 1, pp. 130 - 145, January 1, 2017.
- “Secrecy Rate Optimization for Secure Multicast Communications,” (with Kanapathippillai Cumanan, Zhiguo Ding, and Mai Xu). *IEEE Journal of Selected Topics in Signal Processing - Issue on Exploiting Interference towards Energy Efficient and Secure Wireless Communications*, Vol. 10, No. 8, pp. 1417 - 1432, December 2016.
- “Distributed Constrained Recursive Nonlinear Least-Squares Estimation: Algorithms and Asymptotics,” (with Anit Kumar Sahu, Soumya Kar and José M. F. Moura). *IEEE Transactions on Signal and Information Processing over Networks - Special Issue on Inference and Learning over Networks*, Vol. 2, No. 4, pp. 426 - 441, December 2016.
- “Load Shifting in the Smart Grid: To Participate or Not?” (with Yunpeng Wang, Walid Saad and Narayan B. Mandayam). *IEEE Transactions on Smart Grid*, Vol. 7, No. 8, pp. 2604 - 2614, November 2016.
- “Power Splitting-Based SWIPT with Decode-and-Forward Full-Duplex Relaying,” (with Hongwu Liu, Kyeong Jin Kim and Kyung Sup Kwak). *IEEE Transactions on Wireless Communications*, Vol. 16, No. 11, pp. 7561 - 7577, November 2016.
- “Hypergraph Based Wireless Distributed Storage Optimization for Cellular D2D Underlays,” (with Li Wang, Huaqing Wu, Yinan Ding and Wei Chen). *IEEE Journal on Selected Areas in Communications - Special Issue on Spectrum Sharing and Aggregation for Future Wireless Networks*, Vol. 34, No. 10, pp. 2650 - 2666, October 2016.
- “Quickest Linear Search over Correlated Sequences,” (with Javad Heydari and Ali Tajer). *IEEE Transactions on Information Theory*, Vol. 62, No. 10, pp. 5786 - 5808, October 2016.
- “Security Games with Unknown Adversarial Strategies,” (with Andrey Garnaev and Melike Baykal-Gursoy). *IEEE Transactions on Cybernetics*, Vol. 46, No 10, pp. 2291 - 2299, October 2016.
- “Relay-Aided Space-Time Beamforming for Interference Relay Networks with Partial Channel Knowledge,” (with Wonjae Shin, Namyoon Lee and Jungwoo Lee). *IEEE Transactions on Signal Processing*, Vol. 64, No. 19, pp. 5119 - 5130, October 1, 2016.
- “Secrecy Performance of Finite-Sized Cooperative Single Carrier Systems with Unreliable Backhaul Connections,” (with Kyeong Jin Kim, Phee Lep Yeoh and Philip V. Orlik). *IEEE Transactions on Signal Processing*, Vol. 64, No. 17, pp. 4403 - 4416, September 1, 2016.
- “On Rate, Secrecy, and Network Connectivity Tradeoffs for Wireless Networks,” (with Ruolin Zhang and Cristina Comaniciu). *IEEE Communications Letters*, Vol. 20, No. 8, pp. 1559 - 1562, August 2016.
- “Relay Selection for Cooperative NOMA,” (with Zhiguo Ding and Huaiyu Dai). *IEEE Wireless Communications Letters*, Vol. 5, No. 4, pp. 416 - 419, August 2016.

- “Impact of User Pairing on 5G Non-Orthogonal Multiple Access Downlink Transmissions,” (with Zhiguo Ding and Pingzhi Fan). *IEEE Transactions on Vehicular Technology*, Vol. 65, No. 8, pp. 6010 - 6023, August 2016. [Recipient of the 2018 IEEE Jack Neubauer Award.]
- “Machine Learning Methods for Attack Detection in the Smart Grid,” (with Mete Ozay, Iñaki Esnaola, Fatos T. Yarman Vural and Sanjeev R. Kulkarni). *IEEE Transactions on Neural Networks and Learning Systems*, Vol. 27, No. 8, pp. 1773 - 1786, August 2016.
- “Disintegrated Channel Estimation in Filter-and-Forward Relay Networks,” (with Kao-Peng Chou and Jia-Chin Lin). *IEEE Transactions on Communications*, Vol. 64, No. 7, pp. 2835 - 2847, July 2016.
- “Cooperation of Storage Operation in a Power Network with Renewable Generation,” (with Subhash Lakshminarayana, Yunjian Xu and Tony Q. S. Quek). *IEEE Transactions on Smart Grid*, Vol. 7, No. 4, pp. 2108 - 2122, July 2016.
- “Maximum Distortion Attacks in Electricity Grids,” (with Iñaki Esnaola, Samir M. Perlaza and Oliver Kosut). *IEEE Transactions on Smart Grid*, Vol. 7, No. 4, pp. 2007 - 2015, July 2016.
- “A Mobile Offloading Game Against Smart Attacks,” (with Liang Xiao and Huaiyu Dai). *IEEE Access*, Vol. 4, pp. 2281 - 2291, 2016. [open access]
- “Mining MOOC Clickstreams: Video-Watching Behavior vs. In-Video Quiz Performance,” (with Christopher Brinton, Swapna Buccapatnam, and Mung Chiang). *IEEE Transactions on Signal Processing*, Vol. 64, No. 14, pp. 3677 - 3692, July 15, 2016.
- “Training Design for Channel Estimation in Uplink Cloud Radio Access Networks,” (with Qiang Hu, Mugen Peng and Xinqian Xie). *IEEE Transactions on Signal Processing*, Vol. 64, No. 3, pp. 3324 - 3337, July 1, 2016.
- “A General MIMO Framework for NOMA Downlink and Uplink Transmission Based on Signal Alignment,” (with Zhiguo Ding and Robert Schober). *IEEE Transactions on Wireless Communications*, Vol. 15, No. 6, pp. 4438 - 4454, June 2016.
- “Wireless Information and Power Transfer in Multiway Massive MIMO Relay Networks,” (with Gayan Amarasuriya and Erik G. Larsson). *IEEE Transactions on Wireless Communications*, Vol. 15, No. 6, pp. 3387 - 3855, June 2016.
- “Super-Activation as a Unique Feature of Secure Communication in Malicious Environments,” (with Rafael F. Schaefer and Holger Boche). *Information*, Vol. 7, No. 2, 24, 2016. [open access]
- “Delay-Energy Tradeoff in Multicast Traffic Scheduling for Green 5G Cellular Systems,” (with Chuan Huang, Junshan Zhang and Shuguang Cui). *IEEE Journal on Selected Areas in Communications: Series on Green Communications and Networking*, Vol. 34, No. 5, pp. 1235 - 1249, May 2016.
- “Cluster Content Caching: An Energy-Efficient Approach to Improve Quality of Service in Cloud Radio Access Networks,” (with Zhongyuan Zhao, Mugen Peng, Zhiguo Ding and Wenbo Wang). *IEEE Journal on Selected Areas in Communications: Series on Green Communications and Networking*, Vol. 34, No. 5, pp. 1207 - 1221, May 2016.
- “Near-Optimal Modulo-and-Forward Scheme for the Untrusted Relay Channel,” (with Shengli Zhang, Lisheng Fan and Mugen Peng). *IEEE Transactions on Information Theory*, Vol. 62, No. 5, pp. 2545 - 2556, May 2016.
- “MIMO-NOMA Design for Small Packet Transmission in the Internet of Things,” (with Zhiguo Ding and Linglong Dai). *IEEE Access*, Vol. 4, pp. 1393 - 1405, 2016. [open access]
- “Energy Storage Sharing in Smart Grid: A Modified Auction Based Approach,” (with Wayes Tushar, Bo Chai, Chau Yuen, Shisheng Huang, David Smith and Zaiyue Yang). *IEEE Transactions on Smart Grid*, Vol. 7, No. 3, pp. 1462 - 1475, May 2016.
- “Energy-Efficient Resource Allocation Optimization for Multimedia Heterogeneous Cloud Radio Access Networks,” (with Mugen Peng, Yuling Yu and Hongyu Xiang). *IEEE Transactions on Multimedia*, Vol. 18, No. 5, pp. 879 - 892, May 2016.
- “Design of Massive-MIMO-NOMA with Limited Feedback,” (with Zhiguo Ding). *IEEE Signal Processing Letters*, Vol. 23, No. 5, pp. 629 - 633, May 2016.
- “Distributed Estimation Over Sensor Networks Based on Distributed Conjugate Gradient Strategies,” (with Songcen Xu and Rodrigo C. de Lamare). *IET Signal Processing*, Vol. 10, No. 3, pp. 291 - 301, May 2016.

- “On the Achievable Rate of OFDM with Index Modulation,” (with Miaowen Wen, Xiang Cheng, Bingli Jiao and Liuqing Yang). *IEEE Transactions on Signal Processing*, Vol. 64, No. 8, pp. 1919 - 1932, April 15, 2016.
- “Cooperative Non-Orthogonal Multiple Access with Simultaneous Wireless Information and Power Transfer,” (with Yuanwei Liu, Zhiguo Ding and Maged ElKashlan). *IEEE Journal on Selected Areas in Communications - Special Issue on Energy-Efficient Techniques for 5G Wireless Communication Systems*, Vol. 34, No. 4, pp. 938 - 953, April 2016.
- “A Survey of Energy-Efficient Techniques for 5G Networks and Challenges Ahead,” (with Stefano Buzzi, Chih-Lin I, Thierry E. Klein, Chenyang Yang and Alessio Zappone). *IEEE Journal on Selected Areas in Communications - Special Issue on Energy-Efficient Techniques for 5G Wireless Communication Systems*, Vol. 34, No. 4, pp. 697 - 709, April 2016.
- “Residual-quantization Based Code Design for Compressing Noisy Sources with Arbitrary Decoder Side Information,” (with Yi-Peng Wei, Shih-Chun Lin, Song-Jheng Lin and Hsuan-Jung Su). *IEEE Transactions on Communications*, Vol. 64, No. 4, pp. 1711 - 1725, April 2016.
- “A Learning-Based Approach to Caching in Heterogenous Small Cell Networks,” (with Bettagere N. Bharath and Kyatsandra G. Nagananda). *IEEE Transactions on Communications*, Vol. 64, No. 4, pp. 1674 - 1686, April 2016.
- “Joint Beamforming and Broadcasting in Massive MIMO,” (with Erik Larsson). *IEEE Transactions on Wireless Communications*, Vol. 15, No. 4, pp. 3058 - 3070, April 2016.
- “Distributed Spectrum Estimation Based on Alternating Mixed Discrete-Continuous Adaptation,” (with Tamara Miller, Songchen Xu and Rodrigo C. de Lamare). *IEEE Signal Processing Letters*, Vol. 23, No. 4, pp. 551 - 555, April 2016.
- “Opportunistic Detection Rules: Finite and Asymptotic Analysis,” (with Wenyi Zhang and George Moustakides). *IEEE Transactions on Information Theory*, Vol. 62, No. 4, pp. 2140 - 2152, April 2016.
- “On the SNR-Evolution of the MMSE Function of Codes for the Gaussian Broadcast and Wiretap Channels” (with Ronit Bustin, Rafael F. Schaefer and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 62, No. 4, pp. 2070 - 2091, April 2016.
- “The Likelihood Encoder for Lossy Compression,” (with Eva Song and Paul Cuff). *IEEE Transactions on Information Theory*, Vol. 62, No. 4, pp. 1836 - 1849, April 2016.
- *“Towards a Consumer-Centric Grid: A Behavioral Perspective,” (with Walid Saad, Arnold Glass and Narayan Mandayam). *Proceedings of the IEEE - Special Issue on Microgrids and Energy Efficient Buildings*, Vol. 104, No. 4, pp. 865 - 882, April 2016.
- “Achieving Autonomous Compressive Spectrum Sensing for Cognitive Radios,” (with Jing Jiang, Hongjian Sun and David Baglee). *IEEE Transactions on Vehicular Technology*, Vol. 65, No. 3, pp. 1281 - 1291, March 2016.
- “A Game Theoretic Analysis of Secret and Reliable Communication with Active and Passive Adversarial Modes,” (with Andrey Garnaev and Melike Baykal-Gursoy). *IEEE Transactions on Wireless Communications*, Vol. 15, No. 3, pp. 2155 - 2163, March 2016.
- “Cooperative In-home Powerline Communication: Analyses Based on a Measurement Campaign,” (Michelle S. P. Facina, Haniph A. Latchman and Moisés V. Ribeiro). *IEEE Transactions on Communications*, Vol. 64, No. 2, pp. 778 - 789, February 2016.
- “Initial Synchronization Exploiting Inherent Diversity for the LTE Sector Search Process,” (with Jiachin Lin and Yu-Ting Sun). *IEEE Transactions on Wireless Communications*, Vol. 15, No. 2, pp. 1114 - 1128, February 2016.
- “A Split-Reduced Successive Cancellation List Decoder for Polar Codes,” (with Zhaoyang Zhang, Liang Zhang, Xianbin Wang and Caijun Zhong). *IEEE Journal on Selected Areas in Communications - Special Issue on Recent Advances in Capacity Approaching Codes*, Vol. 34, No. 2, pp. 292 - 302, February 2016.
- “A Coalitional Graph Game Framework for Network Coding Aided D2D Communication,” (with Yong Li, Yulei Zhao, Ning Ge and Zhiguo Ding). *EURASIP Journal on Advances in Signal Processing - Special Issue on Network Coding*, 2016:2.

- “Multi-user SWIPT Cooperative Networks: Is the Max-Min Criterion Still Diversity-Optimal?” (with Zhiguo Ding). *IEEE Transactions on Wireless Communications*, Vol. 15, No. 1, pp. 553 - 557, January 2016.
- “The Application of MIMO to Non-Orthogonal Multiple Access,” (with Zhiguo Ding and Fumiyuki Adachi). *IEEE Transactions on Wireless Communications*, Vol. 15, No. 1, pp. 537 - 552, January 2016.
- “Spectral and Energy Efficiency Trade-Offs in Cellular Networks,” (with Dimitrios Tsilimantos, Jean-Marie Gorce and Katia Jaffrès-Runser). *IEEE Transactions on Wireless Communications*, Vol. 15, No. 1, pp. 54 - 66, January 2016.
- “Cost Minimization of Charging Stations with Photovoltaics: An Approach with EV Classification,” (with Wayes Tushar, Chau Yuen, Shisheng Huang and David B. Smith). *IEEE Transactions on Intelligent Transportation Systems*, Vol. 17, No. 1, pp. 156 - 169, January 2016.
- “Sparse Channel Estimation and Equalization for OFDM-Based Underwater Cooperative Systems with Amplify-and-Forward Relaying,” (with Erdal Panayirci, Habib Senol and Murat Uysal). *IEEE Transactions on Signal Processing*, Vol. 64, No. 1, pp. 214 - 228, January 1, 2016.
- “Convex Optimization for Sensor Placement in Water Distribution Systems,” (with Yue Zhao, Rafi Schwartz and Avi Ostfeld). *Environmental Modelling and Software*, Vol. 76, pp. 128 - 136, 2016.
- “Fast Numerical Nonlinear Fourier Transforms,” (with Sander Wahls). *IEEE Transactions on Information Theory*, Vol. 61, No. 12, pp. 6957 - 6974, December 2015.
- “Cooperative Beamforming and User Selection for Improving the Security of Relay-aided Systems,” (with Tiep M. Hoang, Trung Q. Duong, Himal A. Suraweera and Chintia Tellambura). *IEEE Transactions on Communications*, Vol. 63, No. 12, pp. 5039 - 5051, December 2015.
- “On the Continuity of the Secrecy Capacity of Compound and Arbitrarily Varying Wiretap Channels,” (with Holger Boche and Rafael F. Schaefer). *IEEE Transactions on Information Forensics and Security*, Vol. 10, No. 12, pp. 2531 - 2546, December 2015.
- “User-centric View of Jamming Games in Cognitive Radio Networks,” (with Liang Xiao, Jinliang Liu, Qiangda Li and Narayan B. Mandayam). *IEEE Transactions on Information Forensics and Security*, Vol. 10, No. 12, pp. 2578 - 2590, December 2015.
- “How to Deal with an Intelligent Adversary,” (with Andrey Garnaev and Melike Baykal-Gursoy). *Computers and Industrial Engineering*, Vol. 10, No. 12, pp. 2531 - 2546, December 2015.
- *“Inter-tier Interference Suppression in Heterogeneous Cloud Radio Access Networks,” (with Yuanyuan Cheng, Mugen Peng and Shi Yan). *IEEE Access - Special Section on Emerging Cloud-Based Wireless Communications and Networks*, Vol. 3, pp. 2441 - 2455, 2015. [open access]
- “Bridging the Social and Wireless Networking Divide: Information Dissemination in Integrated Cellular and Opportunistic Networks,” (with Ju Jie, Lie-Liang Yang and Lajos Hanzo). *IEEE Access*, Vol. 3, pp. 1809 - 1848, 2015. [open access]
- “Context-Aware Small Cell Networks: How Social Metrics Improve Wireless Resource Allocation,” (with Omid Semiari, Walid Saad, Stefan Valentin and Mehdi Bennis). *IEEE Transactions on Wireless Communications*, Vol. 14, No. 11, pp. 5927 - 5940, November 2015.
- “Adaptive Link Selection Algorithms for Distributed Estimation,” (with Songcen Xu and Rodrigo C. de Lamare). *EURASIP Journal on Advances in Signal Processing*, 2015:86.
- “Worst-Case Jamming on MIMO Gaussian Channels,” (with Jie Gao, Sergiy A. Vorobyov and Hai Jiang). *IEEE Transactions on Signal Processing*, Vol. 63, No. 21, pp. 5821 - 5836, November 1, 2015.
- “A Low-Complexity Near-ML Differential Spatial Modulation Detector,” (with Miaowen Wen, Xiang Cheng and Yuyang Bian). *IEEE Signal Processing Letters*, Vol. 22, No. 11, pp. 1834 - 1838, November 2015.
- “A New Evaluation Criterion for Non-Orthogonal Multiple Access in 5G Software Defined Networks,” (with Peng Xu, Zhiguo Ding and Xuchu Dai). *IEEE Access*, Vol. 3, pp. 1633 - 1639, 2015. [open access]
- *“Broadcast Networks with Layered Decoding and Layered Secrecy: Theory and Applications,” (with Shaofeng Zou, Yingbin Liang, Lifeng Lai and Shlomo Shamai). *Proceedings of the IEEE - Special*

Issue on Secure Communications Via Physical Layer and Information-Theoretic Techniques, Vol. 103, No. 10, pp. 1841 - 1856, October 2015.

- *“Secure Communication under Channel Uncertainty and Adversarial Attacks,” (with Rafael Schaefer and Holger Boche). *Proceedings of the IEEE - Special Issue on Secure Communications Via Physical Layer and Information-Theoretic Techniques*, Vol. 103, No. 10, pp. 1796 - 1813, October 2015. [Recipient of the ITG-Preis 2016 of the German Information Technology Society]
- “Enabling Data Exchange in Interactive State Estimation under Privacy Constraints,” (with Elena Veronica Belmega and Lalitha Sankar). *IEEE Journal on Selected Topics in Signal Processing - Issue on Signal and Information Processing for Privacy*, Vol. 9, No. 7, pp. 1285 - 1297, October 2015.
- “Perfect Output Feedback in the Two-User Decentralized Interference Channel,” (with Samir M. Perlaza, Ravi Tandon and Zhu Han). *IEEE Transactions on Information Theory*, Vol. 61, No. 10, pp. 5441 - 5462, October 2015.
- “Non-Coherent Successive Relaying and Cooperation: Principles, Designs and Applications,” (with Li Li and Lajos Hanzo). *IEEE Communications Surveys and Tutorials*, Vol. 17, No. 3, pp. 1708 - 1737, Third Quarter 2015.
- “Exploiting Social Trust Assisted Reciprocity (STAR) towards Utility-Optimal Socially-aware Crowd-sensing,” (with Xiaowen Gong, Xu Chen and Junshan Zhang). *IEEE Transactions on Signal and Information Processing over Networks*, Vol. 1, No. 3, pp. 195 - 208, September 2015.
- “Optimal Power Allocation in Block Fading Gaussian Channels with Confidential Messages,” (with Arsenia Chorti and Katerina P. Papadaki). *IEEE Transactions on Wireless Communications*, Vol. 14, No. 9, pp. 4708 - 4719, September 2015.
- “A Multiobjective Approach to Multimicrogrid System Design,” (with Wei-Yu Chiu and Hongjian Sun). *IEEE Transactions on Smart Grid*, Vol. 6, No. 5, pp. 2263 - 2272, September 2015.
- “Distributed Compressed Estimation Based on Compressive Sensing,” (with Songcen Xu and Rodrigo C. de Lamare). *IEEE Signal Processing Letters*, Vol. 22, No. 9, pp. 1311 -1315, September 2015.
- “Cooperative Non-Orthogonal Multiple Access in 5G Systems,” (with Zhiguo Ding and Mugen Peng). *IEEE Communications Letters*, Vol. 19, No. 8, pp. 1462 - 1465, August 2015. [Recipient of the 2018 IEEE Communications Society Heinrich Hertz Prize Paper Award]
- “Distributed Algorithms for Sharing Spectrum Sensing Information in Cognitive Radio Networks,” (with Jarmo Lundén and Mehul Motani). *IEEE Transactions on Wireless Communications*, Vol. 14, No. 8, pp. 4667 - 4678, August 2015.
- “The Price of Self-sustainability for Block Transmission Systems,” (with Marco Maso, Subhash Lakshminarayana and Tony Q. S. Quek). *IEEE Journal on Selected Areas in Communications - Special Issue on Energy Harvesting and Wireless Energy Transfer*, Vol. 33, No. 8, pp. 1549 - 1562, August 2015.
- “Training Design and Channel Estimation in Uplink Cloud Radio Access Networks,” (with Xinqian Xie, Mugen Peng and Wenbo Wang). *IEEE Signal Processing Letters*, Vol. 22, No. 8, pp. 1060 - 1064, August 2015.
- “MIMO Radar Imaging with Imperfect Carrier Synchronization,” (with Weidong Chen, Li Ding and Wenyi Zhang). *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 51, No. 3, pp. 2236 - 2247, July 2015.
- “Differential Spatial Modulation,” (with Yuyang Bian, Xiang Cheng, Miaowen Wen, Liuqing Yang and Bingli Jiao). *IEEE Transactions on Vehicular Technology*, Vol. 64, No. 7, pp. 3262 - 3268, July 2015.
- “Secure Degrees of Freedom of Wireless X Networks Using Artificial Noise Alignment,” (with Zhao Wang, Ming Xiao and Mikael Skoglund). *IEEE Transactions on Communications*, Vol. 63, No. 7, pp. 2632 - 2646, July 2015.
- “On the Design of a Relay-Assisted Network,” (with Ahmed El Shafie, Ahmed Sultan and Tamer Khat-tab). *IEEE Communications Letters*, Vol. 19, No. 7, pp. 1153 - 1156, July 2015.

- “Approximate Capacity Region for the Symmetric Gaussian Interference Channel with Noisy Feedback,” (with Sy-Quoc Le, Ravi Tandon and Mehul Motani). *IEEE Transactions on Information Theory*, Vol. 61, No. 7, pp. 3737 - 3762, July 2015.
- “Autonomous Energy Harvesting Base Stations with Minimum Storage Requirements,” (Panagiotis D. Diamantoulakis, Koralia N. Pappi and George K. Karagiannidis). *IEEE Wireless Communications Letters*, Vol. 4, No. 3, pp. 265 - 268, June 2015.
- “Contract-Based Interference Coordination in Heterogeneous Cloud Radio Access Networks,” (with Mugen Peng, Xinqian Xie, Qiang Hu and Jie Zhang). *IEEE Journal on Selected Areas in Communications - Special Issue on Recent Advances in Heterogenous Cellular Networks*, Vol. 33, No. 6, pp. 1140 - 1153, June 2015.
- “Wind Aggregation Via Risky Power Markets,” (with Yue Zhao, Junjie Qin, Ram Rajagopal and Andrea Goldsmith). *IEEE Transactions on Power Systems*, Vol. 30, No. 3, pp. 1571 - 1581, May 2015.
- “Information Centric Sensor Network Management Via Community Structure,” (with Tzu-Yu Chuang and Kwang-Cheng Chen). *IEEE Communications Letters*, Vol. 19, No. 5, pp. 767 - 770, May 2015.
- “Spectrum Exploration and Exploitation for Cognitive Radio: Recent Advances,” (with Jarmo Lundén and Visa Koivunen). *IEEE Signal Processing Magazine*, Vol. 32, No. 3, pp. 123 - 140, May 2015.
- “Fronthaul-Constrained Cloud Radio Access Networks: Insights and Challenges,” (with Mugen Peng, Chonggang Wang and Vincent Lau). *IEEE Wireless Communications*, Vol. 22, No. 2, pp. 152 - 160, April 2015.
- “Communication Theoretic Data Analytics,” (with Kwang-Cheng Chen, Shao-Lun Huang and Lizhong Zheng). *IEEE Journal on Selected Areas in Communications*, Vol. 33, No. 4, pp. 663 - 375, April 2015.
- “Application of Smart Antenna Technologies in Simultaneous Wireless Information and Power Transfer,” (with Zhiguo Ding, Caijun Zhong, Derrick Wing Kwan Ng, Mugen Peng, Himal A. Suraweera and Robert Schober). *IEEE Communications Magazine*, Vol. 53, No. 4, pp. 86 - 93, April 2015.
- “Three-Party Energy Management with Distributed Energy Resources in Smart Grid,” (with Wayes Tushar, Bo Chai, Chau Yuen, David B. Smith, Kristin L. Wood and Zaiyue Yang). *IEEE Transactions on Industrial Electronics - Special Issue on New Trends in Intelligent Energy Systems*, Vol. 62, No. 4, pp. 2487 - 2498, April 2015.
- *“Robotics Inspired Opportunistic Routing for Cognitive Radio Using Potential Fields,” (with Jan Oksanen, Brett Kaufman and Visa Koivunen). *IEEE Transactions on Cognitive Communications and Networking*, Vol. 1, No. 1, pp. 45 - 55, March 2015.
- “Distributed Kalman Filtering over Massive Data Sets: Analysis Through Large Deviations of Random Riccati Equations,” (with Di Li, Soumya Kar, José M. F. Moura, and Shuguang Cui). *IEEE Transactions on Information Theory*, Vol. 61, No. 3, pp. 1351 - 1372, March 2015.
- “Network Coded Multi-Hop Wireless Communication Networks: Channel Estimation and Training Design,” (with Mugen Peng, Qiang Hu, Xinqian Xie and Zhongyuan Zhao). *IEEE Journal on Selected Areas in Communications - Special Issue on Network Coding in Wireless Communications*, Vol. 33, No. 2, pp. 281 - 294, February 2015.
- “Security Enhancement of Cooperative Single Carrier Systems,” (with Lifeng Wang, Kyeong Jin Kim, Trung Q. Duong and Maged ElKashlan). *IEEE Transactions on Information Forensics and Security*, Vol. 10, No. 1, pp. 90 - 103, January 2015.
- “Cost-Effective and Privacy-Preserving Energy Management for Smart Meters,” (with Lei Yang, Xu Chen and Junshan Zhang). *IEEE Transactions on Smart Grid*, Vol. 6, No. 1, pp. 486 - 495, January 2015.
- “Prospect Theoretic Analysis of Energy Exchange Among Microgrids,” (with Liang Xiao and Narayan B. Mandayam). *IEEE Transactions on Smart Grid*, Vol. 6, No. 1, pp. 63 - 72, January 2015.
- “Spatial Modulated Full Duplex,” (with Bingli Jiao, Miaowen Wen and Meng Ma). *IEEE Wireless Communications Letters*, Vol. 3, No. 6, pp. 641 - 644, December 2014.
- “Cognitive Single Carrier Systems: Joint Impact of Multiple Licensed Transceivers,” (with Kyeong Jin Kim, Lifeng Wang, Trung Q. Duong and Maged ElKashlan). *IEEE Transactions on Wireless Communications*, Vol. 13, No. 12, pp. 6741 - 6755, December 2014.

- “Identification of Outages in Power Systems with Uncertain States and Optimal Sensor Locations,” (with Yue Zhao, Jianshu Chen and Andrea Goldsmith). *IEEE Journal of Selected Topics in Signal Processing - Special Issue on Signal Processing in Smart Electric Power Grid*, Vol. 8, No. 6, pp. 1140 - 1153, December 2014.
- “On the Capacity of Multiple-Access-Z-Interference Channels,” (with Fangfang Zhu, Xiaohu Shang and Biao Chen). *IEEE Transactions on Information Theory*, Vol. 60, No.12, pp. 7732 - 7750, December 2014.
- “Channel Estimation for Two-Way Relay Networks in the Presence of Synchronization Errors,” (with Xinqian Xie, Mugen Peng, Yonghui Li and Wenbo Wang). *IEEE Transactions on Signal Processing*, Vol. 62, No. 23, pp. 6235 - 6248, December 1, 2014.
- “On the Performance of Non-Orthogonal Multiple Access in 5G Systems with Randomly Deployed Users,” (with Zhiguo Ding, Zheng Yang and Pingzhi Fan). *IEEE Signal Processing Letters*, Vol. 21, No. 12, pp. 1501 - 1505, December 2014. [Recipient of the 2018 *IEEE Signal Processing Letters* Best Paper Award]
- “Estimating Directional Statistics Using Wavefield Modeling and Mixtures of von-Mises Distributions,” (with Mário Costa and Visa Koivunen). *IEEE Signal Processing Letters*, Vol. 21, No. 12, pp. 1496 - 1500, December 2014.
- “A Composite Approach to Self-sustainable Transmissions: Rethinking OFDM,” (with Marco Maso, Subhash Lakshminarayana and Tony Q. S. Quek). *IEEE Transactions on Communications*, Vol. 62, No. 11, pp. 3904 - 3917, November 2014.
- “Clustered-Orthogonal Frequency Division Multiplexing for Power Line Communication: When Is It Beneficial?” (with Moisés V. Ribeiro, Guilherme R. Colen, Fabricio V. P. de Campos and Zhi Quan). *IET Communications*, Vol. 8, No. 3, pp. 2336 - 2347, September 2014.
- “Outlying Sequence Detection in Large Data Sets,” (with Ali Tajer and Venu Veeravalli). *IEEE Signal Processing Magazine*, Vol. 31, No. 5, pp. 44 - 56, September 2014.
- “Infrastructure Security Games,” (with Melike Baykal-Gursoy, Zhe Duan and Andrey GarnaeV). *European Journal of Operations Research*, Vol. 239, No. 2, pp. 469 - 478, 2014.
- “Distributed Hybrid Power State Estimation under PMU Sampling Phase Errors,” (with Jian Du, Shao-dan Ma, and Yik-Chung Wu). *IEEE Transactions on Signal Processing*, Vol. 62, No. 16, pp. 4052 - 4063, August 15, 2014.
- “Ergodic Capacity Analysis of Remote Radio Head Associations in Cloud Radio Access Networks,” (with Mugen Peng and Shi Yan). *IEEE Wireless Communications Letters*, Vol. 3, No. 4, pp. 365 - 368, August 2014.
- “Optimal Cellular Offloading Via Device-to-Device Communication Networks with Fairness Constraints,” (with Lina Al-Kanj and Zaher Dawy). *IEEE Transactions on Wireless Communications*, Vol. 13, No. 8, pp. 4628 - 4643, August 2014.
- “Wireless Information and Power Transfer in Cooperative Networks with Spatially Random Relays,” (Zhiguo Ding, Ioannis Krikididis and Bayan Sharif). *IEEE Transactions on Wireless Communications*, Vol. 13, No. 8, pp. 4440 - 4453, August 2014.
- “Incorporating Attack-Type Uncertainty into Network Protection,” (with Andrey GarnaeV and Melike Baykal-Gursoy). *IEEE Transactions on Information Forensics and Security*, Vol. 9, No. 8, pp. 1278 - 1287, August 2014.
- “Cooperation and Storage Tradeoffs in Power-Grids with Renewable Energy Resources,” (with Subhash Lakshminarayana and Tony Q. S. Quek). *IEEE Journal on Selected Areas in Communications: Smart Grid Communications*, Vol. 32, No. 7, pp. 1386 - 1397, July 2014.
- “Multi-user Lattice Coding for the Multiple-access Relay Channel,” (with Chung-Pi Lee, Shih-Chun Lin and Hsuan-Jung Su). *IEEE Transactions on Wireless Communications*, Vol. 13, No. 7, pp. 3539 - 3555, July 2014.
- “Power Allocation for Artificial-noise Secure MIMO Precoding Systems,” (with Shang-Ho (Lawrence) Tsai). *IEEE Transactions on Signal Processing*, Vol. 62, No. 13, pp. 3479 - 3493, July 1, 2014.
- “Quickest Detection in Coupled Systems,” (with Hongzhong Zhang, Olympia Hadjiladis and Tobias Schäfer). *SIAM Journal on Control and Optimization*, Vol. 52, No. 3, pp. 1567 - 1596, 2014.

- “On the Physical Layer Security of Backscatter Wireless Systems,” (with Walid Saad, Xiangyun Zhou and Zhu Han). *IEEE Transactions on Wireless Communications*, Vol. 13, No. 6, pp. 3442 - 3451, June 2014.
- “Interference Masking for Secure Wireless Broadcast Communications,” (with Zhiguo Ding and Kin Leung). *IET Communications - Special Issue on Physical Layer Security*, Vol. 8, No. 8, pp. 1184 - 1197, May 2014.
- “A Reliable Successive Relaying Protocol,” (with Ertuğrul Başar, Ümit Aygözü and Erdal Panayırıcı). *IEEE Transactions on Communications*, Vol. 62, No. 5, pp. 1431 - 1443, May 2014.
- “A Game-Theoretic Approach to Energy Trading in the Smart Grid,” (with Yunpeng Wang, Walid Saad, Zhu Han and Tamer Başar). *IEEE Transactions on Smart Grid*, Vol. 5, No. 3, pp. 1439 -1450, May 2014.
- “Prioritizing Consumers in Smart Grid: A Game Theoretic Approach,” (with Wayes Tushar, Jian A. Zhang, David B. Smith and Sylvie Thiebaux). *IEEE Transactions on Smart Grid*, Vol. 5, No. 3, pp. 1429 - 1438, May 2014.
- *“A Tutorial on Interactive Sensing in Social Networks,” (with Vikram Krishnamurthy). *IEEE Transactions on Computational Social Systems*, Vol. 1, No. 1, pp. 3 - 21, March 2014.
- “Performance Analysis of Differential Spatial Modulation with Two Transmit Antennas,” (with Miaowen Wen, Zhiguo Ding, Xiang Cheng, Yuyang Bian and Bingli Jiao). *IEEE Communications Letters*, Vol. 18, No. 3, pp. 475 - 478, March 2014.
- “Rate-Distortion-Based Physical Layer Secrecy in Multimode Fiber,” (with Eva C. Song, Emina Soljanin, Paul Cuff and Kyle Guan). *IEEE Transactions on Communications*, Vol. 62, No. 3, pp. 1080 - 1090, March 2014.
- “Risk-aware Day-ahead Scheduling and Real-time Dispatch for Electric Vehicle Charging,” (with Lei Yang and Junshan Zhang). *IEEE Transactions on Smart Grid*, Vol. 5, No. 2, pp. 693 - 702, March 2014.
- “Use of SSK Modulation in Two-Way Amplify-and-Forward Relaying,” (with Miaowen Wen, Xiang Cheng and Bingli Jiao). *IEEE Transactions on Vehicular Technology*, Vol. 63, No. 3, pp.1498 - 1504, March 2014.
- “Power Allocation Strategies in Energy Harvesting Wireless Cooperative Networks,” (with Zhiguo Ding, Samir M. Perlaza and Iñaki Esnaola). *IEEE Transactions on Wireless Communications*, Vol. 13, No. 2, pp. 846 - 860, February 2014.
- “A Broadcast Approach for Fading Wiretap Channels,” (with Yingbin Liang, Lifeng Lai and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 60, No. 2, pp. 842 - 858, February 2014.
- “Delay of Social Search on Small-World Graphs,” (with Hazer Inaltekin and Mung Chiang). *Journal of Mathematical Sociology*, Vol. 38, No. 1, pp. 1 - 46, 2014.
- “Sustainability Analysis and Resource Management of Wireless Mesh Networks,” (with Lin X. Cai, Yongkang Liy, Tom H. Luan, Xuemin (Sherman) Shen and Jon W. Mark). *IEEE Journal on Selected Areas in Communications - Special Issue on Spectrum and Energy Efficient Design of Wireless Communication Networks*, Vol. 32, No. 2, pp. 345 - 355, February 2014.
- “Capacity and Security of Heterogeneous Distributed Storage Systems,” (with Toni Ernvall, Salim El Rouayheb and Camilla Hollanti). *IEEE Journal on Selected Areas in Communications - Special Issue on Networking Challenges in Cloud Computing Systems and Applications*, Vol. 31, No. 12, pp. 2701 - 2709, December 2013.
- “Cooperative Energy Harvesting Networks with Spatially Random Users,” (with Zhiguo Ding). *IEEE Signal Processing Letters*, Vol. 20, No. 12, pp. 1211 - 1214, December 2013.
- “Orthogonal Frequency Division Multiplexing with Index Modulation,” (with Ertuğrul Başar, Ümit Aygözü and Erdal Panayırıcı). *IEEE Transactions on Signal Processing*, Vol. 61, No. 22, pp. 5536 - 5549, November 15, 2013.
- “The Use of Spatially Random Base Stations in Cloud Radio Access Networks,” (with Zhiguo Ding). *IEEE Signal Processing Letters*, Vol. 20, No. 11, pp. 1138 - 1141, November 2013.

- “Spectrum Sharing Single-Carrier in the Presence of Multiple Licensed Receivers,” (with Kyeong Jin Kim, Trung Q. Duong, Maged ElKashlan, Phee Lep Yeoh and Moon Ho Lee). *IEEE Transactions on Wireless Communications*, Vol. 12, No. 10, pp. 5223 - 5235, October 2013.
- “Multiagent Reinforcement Learning Based Spectrum Sensing Policies for Cognitive Radio Networks,” (with Jarmo Lundén, Visa Koivunen and Sanjeev R. Kulkarni). *IEEE Journal of Selected Topics in Signal Processing - Special Issue on Learning-Based Decision Making in Dynamic Systems under Uncertainty*, Vol. 7, No. 5, pp. 858 - 868, October 2013.
- “Discriminatory Lossy Source Coding: Side Information Privacy,” (with Ravi Tandon and Lalitha Sankar). *IEEE Transactions on Information Theory*, Vol. 59, No. 9, pp. 5665 - 5677, September 2013.
- *“A Sequential Predictor Retraining Algorithm and its Application to Market Prediction,” (with Haipeng Zheng and Sanjeev R. Kulkarni). *Annals of Operations Research*, Vol. 208, No. 1, pp. 209 - 225, September 2013.
- “From Technological Networks to Social Networks,” (with Kwang-Cheng Chen and Mung Chiang). *IEEE Journal on Selected Areas in Communications - Special Issue on Emerging Technologies in Communications*, Vol. 31, No. 9 (Supplement), pp. 548 - 572, September 2013.
- “On the Resilience of Wireless Multiuser Networks to Passive and Active Eavesdroppers,” (with Arsenia Chorti, Samir M. Perlaza and Zhu Han). *IEEE Journal on Selected Areas in Communications - Special Issue on Signal Processing Techniques for Wireless Physical Layer Security*, Vol. 31, No. 8, pp. 1850 - 1863, September 2013.
- “The Role of Signal Processing in Meeting Privacy Challenges,” (with Lalitha Sankar, Wade Trappe, Kannan Ramchandran and Mérouane Debbah). *IEEE Signal Processing Magazine - Special Issue on Signal Processing for Cyber-Security and Privacy*, Vol. 30, No. 5, pp. 95 - 106, September 2013.
- “Energy-Efficient Power Control for Contention-Based Synchronization in OFDMA Systems with Discrete Powers and Limited Feedback,” (with Giacomo Bacci, Luca Sanguinetti and Marco Luise). *EURASIP Journal on Wireless Communications and Networking*, 2013:192.
- “Bounds on Maximum Likelihood Decoding Performance for Linear Codes at Low Rates,” (with Hideki Yagi). *IEEE Transactions on Information Theory*, Vol. 59, No. 7, pp. 4482 - 4497, July 2013.
- “Quick Search for Rare Events,” (with Ali Tajer). *IEEE Transactions on Information Theory*, Vol. 59, No. 7, pp. 4462 - 4481, July 2013.
- “On the Synergistic Benefits of Alternating CSIT for the MISO Broadcast Channel,” (with Ravi Tandon, Syed A. Jafar and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 59, No. 7, pp. 4106 - 4128, July 2013.
- “Self-Organization in Dense Small Cells: A Reinforcement Learning Approach,” (with Mehdi Bennis, Samir M. Perlaza, Pol Blasco and Zhu Han). *IEEE Transactions on Wireless Communications*, Vol. 12, No. 7, pp. 3202 - 3212, July 2013.
- “Increasing Smart Meter Privacy Through Energy Harvesting and Storage Devices,” (with Onur Tan and Deniz Gündüz). *IEEE Journal on Selected Areas in Communications: Smart Grid Communications*, Vol. 31, No. 7, pp. 1331 - 1341, July 2013.
- “Sparse Attack Construction and State Estimation in the Smart Grid: Centralized and Distributed Models,” (with Mete Ozay, Iñaki Esnaola, Fatos T. Yarman Vural and Sanjeev R. Kulkarni). *IEEE Journal on Selected Areas in Communications: Smart Grid Communications*, Vol. 31, No. 7, pp. 1306 - 1318, July 2013.
- “Multiobjective Approach for Source Estimation in Fuzzy Networked Systems,” (with Wei-Yu Chiu and Bor-Sen Chen). *IEEE Transactions on Circuits and Systems I*, Vol. 60, No. 7, pp. 1890 - 1900, July 2013.
- “BEP Walls for Cooperative Sensing in Cognitive Radios Using K -out-of- N Fusion Rules” (with Sachin Chaudhari, Jarmo Lundén and Visa Koivunen). *Signal Processing*, Vol. 93, No. 7, pp. 1900 - 1908, July 2013.
- “Distributed Linear Parameter Estimation: Asymptotically Efficient Adaptive Strategies,” (with Soumya Kar and José M. F. Moura). *SIAM Journal on Control and Optimization*, Vol. 51, No. 3, pp. 2200 - 2229, 2013.

- “Utility-Privacy Tradeoffs in Databases: An Information-theoretic Approach,” (with Lalitha Sankar and S. Raj Rajagopalan). *IEEE Transactions on Information Forensics and Security - Special Issue on Privacy and Trust in Cloud and Distributed Systems*, Vol. 8, No. 6, pp. 838 - 852, June 2013.
- “Energy Imbalance Management Using a Robust Pricing Scheme,” (with Wei-Yu Chiu and Hongjian Sun). *IEEE Transactions on Smart Grid*, Vol. 4, No. 2, pp. 896 - 904, June 2013.
- “Smart Meter Privacy: A Theoretical Framework,” (with Lalitha Sankar, S. Raj Rajagopalan and Soheil Mohajer). *IEEE Transactions on Smart Grid*, Vol. 4, No. 2, pp. 837 - 846, June 2013.
- “On the Feedback Capacity of the Fully Connected K -User Interference Channel,” (with Soheil Mohajer and Ravi Tandon). *IEEE Transactions on Information Theory*, Vol. 59, No. 3, pp. 2863 - 2881, May 2013.
- “On the Symmetric Feedback Capacity of the K -User Cyclic Z-Interference Channel,” (with Ravi Tandon and Soheil Mohajer). *IEEE Transactions on Information Theory*, Vol. 59, No. 3, pp. 2713 - 2734, May 2013
- “Social Learning and Bayesian Games in Multiagent Signal Processing,” (with Vikram Krishnamurthy). *IEEE Signal Processing Magazine - Special Issue on Adaptation and Learning over Complex Networks*, Vol. 30, No. 3, pp. 43 - 57, May 2013.
- “ QD -Learning: A Collaborative Distributed Strategy for Multi-Agent Reinforcement Learning Through Consensus + Innovations,” (with Soumya Kar and José Moura). *IEEE Transactions on Signal Processing*, Vol. 61, No. 7, pp. 1848 - 1862, April 1, 2013.
- “Reliable Joint Source-Channel Cooperative Transmission over Relay Networks,” (with Deniz Gündüz, Elza Erkip and Andrea Goldsmith). *IEEE Transactions on Information Theory*, Vol. 59, No. 4, pp. 2442 - 2458, April 2013.
- “A General Framework of Precoding Design for Multiple Two-way Relaying Communications,” (with Zhiguo Ding). *IEEE Transactions on Signal Processing*, Vol. 61, No. 6, pp. 1531 - 1535, March 15, 2013.
- “Outage Probability of Single-Carrier Cooperative Spectrum Sharing Systems with Decode-and-Forward Relaying and Selection Combining,” (with Kyeong Jim Kim and Trung Q. Duong). *IEEE Transactions on Wireless Communications*, Vol. 12, No. 2, pp. 806 - 817, March 2013.
- “Achievable Rates for Discrete Memoryless Relay Channels With Generalized Feedback,” (with Jinhua Jiang and Yan Xin). *Transactions on Emerging Telecommunications Technologies*, Vol. 24, no. 2, pp. 212 - 231, March 2013.
- “Heegard-Berger and Cascade Source Coding Problems with Common Reconstruction Constraints,” (with Ravi Tandon, Behzad Ahmadi and Osvaldo Simeone). *IEEE Transactions on Information Theory*, Vol. 59, No. 3, pp. 1458 - 1474, March 2013.
- “Degrees of Freedom Region of the MIMO Interference Channel with Output Feedback and Delayed CSIT” (with Ravi Tandon, Soheil Mohajer and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 59, No. 3, pp. 1444 - 1457, March 2013.
- “New Results on Multiple-Input Multiple-Output Broadcast Channels with Confidential Messages,” (with Ruoheng Liu, Tie Liu and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 59, No. 3, pp. 1346 - 1359, March 2013.
- “A Game-Theoretic Approach for Energy-Efficient Contention-Based Synchronization in OFDMA Systems,” (with Giacomo Bacci, Luca Sanguinetti and Marco Luise). *IEEE Transactions on Signal Processing*, Vol. 61, No. 5, pp. 1258 - 1271, March 1, 2013.
- “A General Robust Linear Transceiver Design for Multi-Hop Amplify-and-Forward MIMO Relaying Systems,” (with Chengwen Xing, Zesong Fei, Shaodan Ma and Yik-Chung Wu). *IEEE Transactions on Signal Processing*, Vol. 61, No. 5, pp. 1196 - 1209, March 1, 2013.
- “Dimension Expansion and Customized Spring Potentials for Sensor Localization,” (with Jieqi Yu and Sanjeev R. Kulkarni). *EURASIP Journal on Advances in Signal Processing*, 2013:20.
- “Opportunistic Detection Under a Fixed-sample-size Setting,” (with Wenyi Zhang). *IEEE Transactions on Information Theory*, Vol. 59, No. 2, pp. 1107 - 1114, February 2013.

- “Half-Duplex Relaying over Slow Fading Channels Based on Quantize-and-Forward,” (with Sha Yao, Tüng T. Kim and Mikael Skoglund). *IEEE Transactions on Information Theory*, Vol. 59, No. 2, pp. 860 - 872, February 2013.
- “On Energy-Secrecy Tradeoffs for Gaussian Wiretap Channels,” (with Cristina Comaniciu). *IEEE Transactions on Information Forensics and Security*, Vol. 8, No. 2, pp. 314 - 323, February 2013.
- “Performance Analysis of Cyclic Prefixed Single-Carrier Cognitive Amplify-and-Forward Relay Systems,” (with Kyeong Jin Kim and Trung Q. Duong). *IEEE Transactions on Wireless Communications*, Vol. 13, No. 1, pp. 195 - 205, January 2013.
- “Noisy-Interference Sum-Rate Capacity of Vector Gaussian Interference Channels,” (with Xiaohu Shang). *IEEE Transactions on Information Theory*, Vol. 59, No. 1, pp. 132 -153, January 2013.
- “The Multi-Way Relay Channel,” (with Deniz Gündüz, Aylin Yener and Andrea J. Goldsmith). *IEEE Transactions on Information Theory*, Vol. 59, No. 1, pp. 51 - 63, January 2013.
- “Super-Orthogonal Trellis Coded Spatial Modulation,” (with Ertuğrul Başar, Ümit Aygözü and Erdal Panayircı). *IET Communications*, Vol. 6, No. 17, pp. 2922 - 2932, 2012
- “Economics of Electric Vehicle Charging: A Game Theoretic Approach,” (with Wayes Tushar, Walid Saad and David Smith). *IEEE Transactions on Smart Grid*, Vol. 3, No. 4, pp. 1767 - 1778, December 2012.
- “Relaying Technologies for Smart Grid Communications,” (with Hongjian Sun, Bo Tan, Jing Jiang, John S. Thompson and Arumugam Nallanathan). *IEEE Wireless Communications*, Vol. 19, No. 6, pp. 52 - 59, December 2012.
- “Performance Analysis of Cyclic Prefixed Single-Carrier Spectrum Sharing Relay Systems in Primary User Interference,” (with Kyeong Jin Kim, Trung Q. Duong and Lei Shu). *IEEE Transactions on Signal Processing*, Vol. 60, No. 12, pp. 6729 - 6734, December 2012.
- “Compound-Gaussian Clutter Modelling with an Inverse Gaussian Texture Distribution,” (with Esa Ollila, David E. Tyler and Visa Koivunen). *IEEE Signal Processing Letters*, Vol. 19, No. 12, pp. 876 - 879, December 2012.
- “Tree Formation with Physical Layer Security Considerations in Wireless Multi-Hop Networks,” (with Walid Saad, Xiangyun Zhou, Behrouz Maham and Tamer Başar). *IEEE Transactions on Wireless Communications*, Vol. 11, No. 11, pp. 3980 - 3991, November 2012.
- “Citizen Forecasts of the 2008 U.S. Presidential Election,” (with Michael K. Miller, Guanchun Wang, Sanjeev R. Kulkarni and Daniel N. Osherson). *Politics and Policy*, Vol. 40, No. 6, pp. 1019 - 1052, November 2012.
- “Wideband Spectrum Sensing with Sub-Nyquist Sampling in Cognitive Radios,” (with Hongjian Sun, Wei-Yu Chiu and Arumugam Nallanathan). *IEEE Transactions on Signal Processing*, Vol. 60, No. 11, pp. 6068 - 6073, November 2012.
- “Complex Elliptically Symmetric Distributions: Survey, New Results and Applications,” (with Esa Ollila, David E. Tyler and Visa Koivunen). *IEEE Transactions on Signal Processing*, Vol. 60, No. 11, pp. 5597 - 5625, November 2012.
- “Outage Probability and Outage-Based Robust Beamforming for MIMO Interference Channels with Imperfect Channel State Information,” (with Juho Park, Youngchul Sung and Donggun Kim). *IEEE Transactions on Wireless Communications*, Vol. 11, No. 12, pp. 3561 - 3573, October 2012.
- “A Cooperative Bayesian Nonparametric Framework for Primary User Activity Monitoring in Cognitive Radio Networks,” (with Walid Saad, Zhu Han, Tamer Başar and Ju Bin Song). *IEEE Journal on Selected Areas in Communications - Special Issue on Cooperative Networking: Challenges and Applications*, Vol. 30, No. 9, pp. 1815 - 1822, October 2012.
- “Performance Analysis of Adaptive Decode-and-Forward Cooperative Single-Carrier Systems,” (with Kyeong Jin Kim and Trung Q. Duong). *IEEE Transactions on Vehicular Technology*, Vol. 61, No. 7, pp. 3332 - 3337, September 2012.
- “Full Duplexity in Beamforming-Based Multi-Hop Relay Networks,” (with Hyungsik Ju, Sungmook Lim, Dongkyu Kim and Daesik Hong). *IEEE Journal on Selected Areas in Communications - Special Issue*

- on Theories and Methods for Advanced Wireless Relays*, Vol. 30, No. 8, pp. 1554 - 1565, September 2012.
- “Fully Distributed State Estimation for Wide-Area Monitoring Systems,” (with Le Xie, Dae-Hyun Choi and Soumya Kar). *IEEE Transactions on Smart Grid*, Vol. 3, No. 3, pp. 1154 - 1169, September 2012.
- “Coordinated Data Injection Attack and Detection in Smart Grid,” (with Shuguang Cui, Zhu Han, Soumya Kar, Tùng T. Kim and Ali Tajer). *IEEE Signal Processing Magazine - Special Issue on Signal Processing Techniques for Smart Grid*, Vol. 29, No. 5, pp. 106 - 115, September 2012.
- “Game-theoretic Methods for the Smart Grid,” (with Walid Saad, Zhu Han and Tamer Başar). *IEEE Signal Processing Magazine - Special Issue on Signal Processing Techniques for Smart Grid*, Vol. 29, No. 5, pp. 86 - 105, September 2012.
- “Cooperative Wireless Cellular Systems: An Information-Theoretic View,” (with Osvaldo Simeone, Nathan Levy, Amichai Sanderovich, Oren Somekh, Benjamin M. Zaidel, and Shlomo Shamai). *Foundations and Trends in Communications and Information Theory*, Vol. 8, Nos. 1-2, pp. 1 - 177, 2012. [Also published in monograph form by Now Publishers, Hanover, MA.]
- “Incremental Reformulated Automatic Relevance Determination,” (with Dmitriy Shutin and Sanjeev R. Kulkarni). *IEEE Transactions on Signal Processing*, Vol. 60, No. 9, pp. 4973 - 4976, September 2012.
- “Nondata-Aided Joint Channel Estimation and Equalization for OFDM Systems in Very Rapidly Varying Mobile Channels,” (with Habib Senol and Erdal Panayırçı). *IEEE Transactions on Signal Processing*, Vol. 60, No. 8, pp. 4236 - 4253, August 2012.
- “Physical Layer Secrecy for OFDM Transmissions over Fading Channels,” (with Francesco Renna and Nicola Laurenti). *IEEE Transactions on Information Forensics and Security*, Vol. 7, No. 4, pp. 1354 - 1367, August 2012.
- “Towards Efficient Radio Spectrum Utilization: User Cooperation in Cognitive Radio Networking,” (with Bin Cao, Lin X. Cai, Jon W. Mark and Qinyu Zhang). *IEEE Network*, Vol. 26, No. 4, pp. 46 - 52, July/August 2012.
- “Multicast Routing for Decentralized Control of Cyber Physical Systems with an Application in Smart Grid,” (with Husheng Li and Lifeng Lai). *IEEE Journal on Selected Areas in Communications: Smart Grid Communications*, Vol. 29, No. 6, pp. 1097 - 1107, July 2012.
- “Capacity Region of Vector Gaussian Interference Channels with Generally Strong Interference,” (with Xiaohu Shang). *IEEE Transactions on Information Theory*, Vol. 56, No. 6, pp. 3472 - 3496, June 2012.
- “Energy-Distortion Tradeoffs in Joint Source-Channel Coding Problems,” (with Aman Jain, Deniz Gündüz, Sanjeev R. Kulkarni and Sergio Verdú). *IEEE Transactions on Information Theory*, Vol. 58, No. 5, pp. 3153 - 3168, May 2012.
- “Spectrum Sensing for Cognitive Radio: State-of-the-Art and Recent Advances,” (with Erik Axell, Geert Leus and Erik G. Larsson). *IEEE Signal Processing Magazine*, Vol. 29, No. 3, pp. 101 - 116, May 2012.
- “Regularized Variational Bayesian Learning of Echo State Networks with Delay&Sum Readout,” (with Dmitriy Shutin, Christoph Zechner and Sanjeev R. Kulkarni). *Neural Computation*, Vol. 24, No. 4, pp. 967 - 995, April 2012.
- “On Gaussian MIMO BC-MAC Duality with Multiple Transmit Covariance Constraints,” (with Lan Zhang, Rui Zhang, Ying-Chang Liang and Yan Xin). *IEEE Transactions on Information Theory*, Vol. 58, No. 4, pp. 2064 - 2078, April 2012.
- “CSSF MIMO RADAR: Compressive-Sensing and Step-Frequency Based MIMO Radar,” (with Yao Yu and Athina Petropulu). *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 48, No. 2, pp. 1490 - 1504, April 2012.
- “A Unified Framework for Key Agreement over Wireless Fading Channels,” (with Lifeng Lai and Yingbin Liang). *IEEE Transactions on Information Forensics and Security*, Vol. 7, No. 2, pp. 480 - 490, April 2012.

- “Coalitional Games in Partition Form for Joint Spectrum Sensing and Access in Cognitive Radio Networks,” (with Walid Saad, Zhu Han, Rong Zheng, Are Hjørungnes and Tamer Başar). *IEEE Journal of Selected Topics in Signal Processing - Special Issue on Game Theory in Signal Processing*, Vol. 6, No. 2, pp. 195 - 209, April 2012.
- “Robust Ellipse and Spheroid Fitting,” (with Jieqi Yu and Sanjeev R. Kulkarni). *Pattern Recognition Letters*, Vol. 33, No. 5, pp. 492 - 499, 1 April 2012.
- “The Evolution of Online Social Networks: A Tutorial Survey,” (with Chris Leberknight, Hazer Inaltekin and Mung Chiang). *IEEE Signal Processing Magazine - Special Issue on Signal and Information Processing for Social Learning and Networking*, Vol. 29, No. 2, pp. 41 - 52, March 2012.
- *“Information and Inference in the Wireless Physical Layer.” *IEEE Wireless Communications*, Vol. 19, No. 1, pp. 40 - 47, February 2012.
- “A Reduced Feedback Precoder for MIMO-OFDM Cooperative Diversity Systems,” (with Kyeong Jin Kim, Yijia Fan and Ronald A. Iltis). *IEEE Transactions on Vehicular Technology*, Vol. 61, No. 2, pp. 584 - 596, February 2012.
- “Performance of Spatial Modulation in the Presence of Channel Estimation Errors,” (with Ertuğrul Başar, Ümit Aygözü and Erdal Panayırıcı). *IEEE Communications Letters*, Vol. 16, No. 2, pp. 176 - 179, February 2012.
- “Opportunistic Cooperative Networking: To Relay or Not To Relay?” (with Xiaowen Gong, Chandrashekar Thejaswi P. S. and Junshan Zhang). *IEEE Journal on Selected Areas in Communications - Special Issue on Cooperative Networking: Challenges and Applications*, Vol. 30, No. 2, pp. 307 - 314, February 2012.
- “Bi-Directional Use of Spatial Resources and Effects of Spatial Correlation,” (with Hyungsik Ju, Xiaohu Shang and Daesik Hong). *IEEE Transactions on Wireless Communications*, Vol. 11, No. 1, pp. 346 - 357, January 2012.
- “Non-line-of-sight Node Localization Based on Semi-Definite Programming in Wireless Sensor Networks,” (with Hongyang Chen, Gang Wang, Zizhuo Wang and H. C. So). *IEEE Transactions on Wireless Communications*, Vol. 11, No. 1, pp. 108 - 116, January 2012.
- “Selfish Random Access over Wireless Channels with Multipacket Reception,” (with Hazer Inaltekin, Mung Chiang, and Stephen B. Wicker). *IEEE Journal on Selected Areas in Communications - Special Issue on Game Theory in Wireless Communications*, Vol. 30, No. 1, pp. 138 - 152, January 2012.
- “Superimposed Training Based Channel Estimation and Data Detection for OFDM Amplify-and-Forward Cooperative Systems under High Mobility,” (with Lanlan He, Yik-Chung Wu, Shaodan Ma and Tung-Sang Ng). *IEEE Transactions on Signal Processing*, Vol. 60, No. 1, pp. 274 - 284, January 2012.
- “Sensor Selection in Distributed Multiple-Radar Architectures for Localization: A Knapsack Problem Formulation,” (with Hana Godrich and Athina Petropulu). *IEEE Transactions on Signal Processing*, Vol. 60, No. 1, pp. 247 - 260, January 2012.
- “Cooperative Sensing with Imperfect Reporting Channels: Hard Decisions or Soft Decisions?” (with Sachin Chaudhari, Jarmo Lundén and Visa Koivunen). *IEEE Transactions on Signal Processing*, Vol. 60, No. 1, pp. 18 - 28, January 2012.
- “A General Analytical Approach for Opportunistic Cooperative Systems with Spatially Random Relays,” (Hongzheng Wang, Shaodan Ma and Tung-Sang Ng). *IEEE Transactions on Wireless Communications*, Vol. 10, No. 12, pp. 4122 - 4129, December 2011.
- “Fast Variational Sparse Bayesian Learning with Automatic Relevance Determination for Sparse Signals,” (with Dmitriy Shutin, Thomas Buchgraber and Sanjeev R. Kulkarni). *IEEE Transactions on Signal Processing*, Vol. 59, No. 12, pp. 6257 - 6261, December 2011.
- “Measurement Matrix Design for Compressive Sensing Based MIMO Radar,” (with Yao Yu and Athina Petropulu). *IEEE Transactions on Signal Processing*, Vol. 59, No. 11, pp. 5338 - 5352, November 2011.
- “Bi-Directional Beamforming and Its Capacity Scaling in Pairwise Two-Way Communications,” (with Hyungsik Ju, Dongkyu Kim and Daesik Hong). *IEEE Transactions on Wireless Communications*, Vol. 10, No. 10, pp. 3368 - 3379, October 2011.

- “Dimensioning Network Deployment and Resource Management in Green Mesh Networks,” (with Lin X. Cai, Yongkang Liu, Tom H. Luan, Xuemin (Sherman) Shen and Jon W. Mark). *IEEE Wireless Communications - Special Issue on Technologies for Green Radio Communication Networks*, Vol. 18, No. 5, pp. 58 - 63, October 2011.
- “Secrecy Throughput of MANETs with Active and Passive Attacks,” (with Yingbin Liang and Lei Ying). *IEEE Transactions on Information Theory*, Vol. 57, No. 10, pp. 6692 - 6702, October 2011.
- “Frequency Offset and Channel Estimation in Cooperative Relay Networks,” (with Kyeong Jin Kim and Ronald A. Iltis). *IEEE Transactions on Vehicular Technology*, Vol. 60, No. 7, pp. 3142 - 3155, September 2011.
- “BICM Decoding of Jammed OFDM Transmissions Using the EM Algorithm,” (with Luca Sanguinetti and Michele Morelli). *IEEE Transactions on Wireless Communications*, Vol. 10, No. 9, pp. 2800 - 2806, September 2011.
- “Scheduling Power Consumption with Price Uncertainty,” (with Tùng Kim). *IEEE Transactions on Smart Grid*, Vol. 2, No. 3, pp. 519 - 527, September 2011.
- “Secure Communications over Wireless Broadcast Networks: Stability and Utility Maximization,” (with Yingbin Liang and Lei Ying). *IEEE Transactions on Information Forensics and Security - Special Issue on Using the Physical Layer for Securing the Next Generation of Communication Systems*, Vol. 6, No. 3, pp. 682 - 692, September 2011.
- “New Trellis Code Design for Spatial Modulation,” (with Ertuğrul Başar, Ümit Aygözü and Erdal Panayırçı). *IEEE Transactions on Wireless Communications*, Vol. 10, No. 8, pp. 2670 - 2680, August 2011.
- “An Effective Distributed Space-Time Code for Two-Path Successive Relay Networks,” (with Feng Tian, Wei Zhang, Wing-Kin Ma and P. C. Ching). *IEEE Transactions on Communications*, Vol. 59, No. 8, pp. 2254 - 2263, August 2011.
- “Quickest Search over Multiple Sequences,” (with Lifeng Lai, Yan Xin and Georgios Georgiadis). *IEEE Transactions on Information Theory*, Vol. 57, No. 8, pp. 5375 - 5386, August 2011.
- “Fading Cognitive Multiple-Access Channels With Confidential Messages,” (with Ruoheng Liu and Yingbin Liang). *IEEE Transactions on Information Theory*, Vol. 57, No. 8, pp. 4992 - 5005, August 2011.
- “Minimum Energy to Send k Bits Through the Gaussian Channel With and Without Feedback,” (with Yury Polyanskiy and Sergio Verdú). *IEEE Transactions on Information Theory*, Vol. 57, No. 8, pp. 4880 - 4902, August 2011.
- “Lossy Multicasting over Binary Symmetric Broadcast Channels,” (with Ozgun Y. Bursalioglu, Maria Fresia and Giuseppe Caire). *IEEE Transactions on Signal Processing*, Vol. 59, No. 8, pp. 3915 - 3929, August 2011.
- “Low-Complexity MAP-Based Successive Data Detection for OFDM Over Highly Mobile Wireless Channels,” (with Erdal Panayırçı and Hakan Dogan). *IEEE Transactions on Vehicular Technology*, Vol. 60, No. 6, pp. 2849 - 2857, July 2011.
- “Power Allocation in Cyclic Prefixed Single-Carrier Relaying Systems,” (with Kyeong Jin Kim and Theodoros A. Tsiftsis). *IEEE Transactions on Wireless Communications*, Vol. 10, No. 7, pp. 2390 - 2400, July 2011.
- “Multiuser MISO Interference Channels with Single-User Detection: Optimality of Beamforming and the Achievable Rate Region,” (with Xiaohu Shang and Biao Chen). *IEEE Transactions on Information Theory*, Vol. 57, No. 7, pp. 4255 - 4273, July 2011.
- “Diversity-Multiplexing Tradeoff in Adaptive Two-Way Relaying,” (with Tùng Kim). *IEEE Transactions on Information Theory*, Vol. 57, No. 7, pp. 4235 - 4254, July 2011.
- “Robust Communication Via Decentralized Processing with Unreliable Backhaul Links,” (with Osvaldo Simeone, Oren Somekh, Elza Erkip and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 57, No. 7, pp. 4187 - 4201, July 2011.
- “Power Allocation Strategies for Target Localization in Distributed Multiple-Radar Architectures,” (with Hana Godrich and Athina Petropulu). *IEEE Transactions on Signal Processing*, Vol. 59, No. 7, pp. 3226 - 3240, July 2011.

- “Aggregating Large Sets of Probabilistic Forecasts by Weighted Coherent Adjustment,” (with Guanchun Wang, Sanjeev R. Kulkarni and Daniel Osherson). *Decision Analysis*, Vol. 8, No. 2, pp. 128 - 144, June 2011.
- “MIMO Sistemler için Gelişmiş Uzaysal Modülasyon Teknikleri,” (in Turkish, with Ertuğrul Başar, Ümit Aygözü and Erdal Panayırıcı). *EMO Bilmisel Dergi*, Vol. 1, No. 1, pp. 15 - 25, June 2011.
- “Strategic Protection Against Data Injection Attacks on Power Grids,” (with Tüncü Kim). *IEEE Transactions on Smart Grid*, Vol. 2, No. 2, pp. 326 - 333, June 2011.
- “On Minimax Robust Detection of Stationary Gaussian Signals in White Gaussian Noise,” (with Wenyi Zhang). *IEEE Transactions on Information Theory*, Vol. 57, No. 6, pp. 3915 - 3924, June 2011.
- “Coset Codes for Compound Multiple Access Channels with Common Information,” (with Hideki Yagi). *IEEE Transactions on Information Theory*, Vol. 57, No. 6, pp. 3429 - 3448, June 2011.
- “Interference Alignment for Secrecy,” (with Onur Ozan Koyluoglu, Hesham El Gamal and Lifeng Lai). *IEEE Transactions on Information Theory*, Vol. 57, No. 6, pp. 3323 - 3332, June 2011.
- “Interference Assisted Secret Communication,” (with Xiaojun Tang, Ruoheng Liu and Predrag Spasojevic). *IEEE Transactions on Information Theory - Special Issue on Interference Networks*, Vol. 57, No. 5, pp. 3153 - 3167, May 2011.
- “On the Capacity of Type I Broadcast-Z-Interference Channels,” (with Xiaohu Shang). *IEEE Transactions on Information Theory - Special Issue on Interference Networks*, Vol. 57, No. 5, pp. 2648 - 2666, May 2011.
- “Ergodic Fading Interference Channels: Sum-Capacity and Separability,” (with Lalitha Sankar, Xiaohu Shang and Elza Erkip). *IEEE Transactions on Information Theory - Special Issue on Interference Networks*, Vol. 57, No. 5, pp. 2605 - 2626, May 2011.
- “Pilot-Aided IQ Imbalance Compensation for OFDM Systems Operating over Doubly Selective Channels,” (with Lanlan He, Shaodan Ma, Yik-Chung Wu and Tung-Sang Ng). *IEEE Transactions on Signal Processing*, Vol. 59, No. 5, pp. 2223 - 2233, May 2011.
- “Ultra-Wideband Signaling for Accurate Positioning,” (with Hamza Soganci and Sinan Gezici). *IEEE Wireless Communications - Special Issue on Emerging Opportunities in Localization and Tracking*, Vol. 18, No. 2, pp. 19 - 27, April 2011.
- “Fading Multiple Access Relay Channels: Achievable Rates and Opportunistic Scheduling,” (with Lalitha Sankar, Yingbin Liang and Narayan B. Mandayam). *IEEE Transactions on Information Theory*, Vol. 57, No. 4, pp. 1911 - 1931, April 2011.
- “Dispersion of the Gilbert-Elliott Channel,” (with Yury Polyanskiy and Sergio Verdú). *IEEE Transactions on Information Theory*, Vol. 57, No. 4, pp. 1829 - 1848, April 2011.
- “Space-Time Block-Coded Spatial Modulation,” (with Ertuğrul Başar, Ümit Aygözü and Erdal Panayırıcı). *IEEE Transactions on Communications*, Vol. 59, No. 3, pp. 823 - 832, March 2011.
- “Repeated Auctions with Bayesian Nonparametric Learning for Spectrum Access in Cognitive Radio Networks,” (with Zhu Han and Rong Zheng). *IEEE Transactions on Wireless Communications*, Vol. 10, No. 2, pp. 890 - 900, March 2011.
- “Privacy-Security Trade-offs in Biometric Security Systems - Part II: Multiple-Use Case,” (with Lifeng Lai and Siu-Wai Ho). *IEEE Transactions on Information Forensics and Security*, Vol. 6, No. 1, pp. 140 - 151, March 2011.
- “Privacy-Security Trade-offs in Biometric Security Systems - Part I: Single-Use Case,” (with Lifeng Lai and Siu-Wai Ho). *IEEE Transactions on Information Forensics and Security*, Vol. 6, No. 1, pp. 122 - 139, March 2011.
- “Cooperative Transmission for Relay Networks Based on Second-Order Statistics of Channel State Information,” (with Jiangyuan Li and Athina Petropulu). *IEEE Transactions on Signal Processing*, Vol. 59, No. 3, pp. 1280 - 1291, March 2011.
- “Cognitive Medium Access: Exploration, Exploitation and Competition,” (with Lifeng Lai, Hesham El-Gamal and Hai Jiang). *IEEE Transactions on Mobile Computing*, Vol. 10, No. 2, pp. 239 - 253, February 2011.

- “Performance Analysis of Joint Opportunistic Scheduling and Linear Receiver Design for the MIMO-SDMA Downlink,” (with Simon Pun and Visa Koivunen). *IEEE Transactions on Communications*, Vol. 59, No. 1, pp. 268 - 280, January 2011.
- “Polynomial-Time Decodable Codes for Multiple Access Channels,” (with Hideki Yagi). *IEEE Communications Letters*, Vol. 15, No. 1, pp. 73 - 75, January 2011.
- “On the Secure Degrees of Freedom of Relaying with Half-duplex Feedback,” (with Tùng Kim). *IEEE Transactions on Information Theory*, Vol. 57, No. 1, pp. 291 - 302, January 2011.
- “Noisy-Interference Sum-Rate Capacity of Parallel Gaussian Interference Channels,” (with Xiaohu Shang, Biao Chen and Gerhard Kramer). *IEEE Transactions on Information Theory*, Vol. 57, No. 1, pp. 210 - 226, January 2011.
- “On the Equivalence of Two Achievable Regions for the Broadcast Channel,” (with Yingbin Liang and Gerhard Kramer). *IEEE Transactions on Information Theory*, Vol. 57, No. 1, pp. 95 - 100, January 2011.
- “Attribute-distributed Learning: Models, Limits and Algorithms,” (with Haipeng Zheng and Sanjeev R. Kulkarni). *IEEE Transactions on Signal Processing*, Vol. 59, No. 1, pp. 386 - 398, January 2011.
- “Approaching the Optimal Diversity-Multiplexing Tradeoff for a Four-node Cooperative Network,” (with Chao Wang, Yijia Fan, John S. Thompson and Mikael Skoglund). *IEEE Transactions on Wireless Communications*, Vol. 9, No.12, pp. 3690 - 3700, December 2010.
- “Multiple Multicasts with the Help of a Relay,” (with Deniz Gùndüz, Osvaldo Simeone, Andrea J. Goldsmith and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 56, No. 12, pp. 6142 - 6158, December 2010.
- “Interference Channels with Correlated Receiver Side Information,” (with Nan Liu, Deniz Gùndüz and Andrea J. Goldsmith). *IEEE Transactions on Information Theory*, Vol. 56, No. 12, pp. 5984 - 5998, December 2010.
- “Asymmetrical Round Trip Based Synchronization-free Localization in Large-scale Underwater Sensor Networks,” (with Bin Liu, Hongyang Chen and Ziguò Zhong). *IEEE Transactions on Wireless Communications*, Vol. 9, No. 11, pp. 3532 - 3542, November 2010.
- “Joint Source and Channel Coding,” (with Maria Fresia, Fernando Pérez-Cruz and Sergio Verdù). *IEEE Signal Processing Magazine - Special Issue on Graphical Models in Signal Processing*, Vol. 27, No. 6, pp. 104 - 113, November 2010.
- “A Monte-Carlo Implementation of the SAGE Algorithm for Joint Soft-Multiuser Decoding, Channel Parameter Estimation, and Code Acquisition,” (with Alexander Kocian, Erdal Panayırçı and Marina Ruggieri). *IEEE Transactions on Signal Processing*, Vol. 58, No. 11, pp. 5756 - 5766, November 2010.
- “Two-Stage Outlier Elimination for Robust Curve and Surface Fitting,” (with Jieqi Yu, Haipeng Zheng and Sanjeev R. Kulkarni). *EURASIP Journal on Advances in Signal Processing - Special Issue on Robust Processing of Non-stationary Signals*, Volume 2010, Article ID 154891, 13 pages. [Open access article.]
- “On Maximum-Likelihood SINR Estimation of MPSK in a Multiuser Fading Channel,” (with Siamak Sorooshyari and Chee Wei Tan). *IEEE Transactions on Vehicular Technology*, Vol. 59, No. 8, pp. 4175 - 4181, October 2010.
- “Distributed Opportunistic Scheduling with Two-Level Probing,” (with Chandrashekhara Thejaswi P. S., Junshan Zhang, Simon Pun and Dong Zheng). *IEEE/ACM Transactions on Networking*, Vol. 18, No. 5, pp. 1464 - 1477, October 2010.
- “Capacity Regions and Sum-Rate Capacities of Vector Gaussian Interference Channels,” (with Xiaohu Shang, Biao Chen and Gerhard Kramer). *IEEE Transactions on Information Theory*, Vol. 56, pp. 5030 - 5044, No. 10, October 2010.
- “Spreading Code and Widely-Linear Receiver Design: Non-Cooperative Games for CDMA Wireless Networks,” (with Stefano Buzzi and Alessio Zappone). *IEEE Transactions on Information Theory*, Vol. 56, No. 10, pp. 4874 - 4892, October 2010.

- “Average Message Delivery Time for Small-World Networks in the Continuum Limit,” (with Hazer Inaltekin and Mung Chiang). *IEEE Transactions on Information Theory*, Vol. 56, No. 9, pp. 4447 - 4470, September 2010.
- “Multiple-Input Multiple-Output Gaussian Broadcast Channels with Confidential Messages,” (with Ruo-heng Liu, Tie Liu and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 56, No. 9, pp. 4215 - 4227, September 2010.
- “Cellular Systems with Non-Regenerative Relaying and Cooperative Base Stations,” (with Oren Somekh, Osvaldo Simeone and Shlomo Shamai). *IEEE Transactions on Wireless Communications*, Vol. 9, No. 8, pp. 2654 - 2663, August 2010.
- “Joint Channel Estimation, Equalization and Data Detection for OFDM Systems in the Presence of Very High Mobility,” (with Erdal Panayircı and Habib Senol). *IEEE Transactions on Signal Processing*, Vol. 58, No. 8, pp. 4225 - 4238, August 2010.
- “Blind Separation of Two Users Based on User Delays and Optimal Pulse Shape Design,” (with Xin Liu, Athina Petropulu and Visa Koivunen). *EURASIP Journal on Wireless Communications and Networking - Special Issue on Interference Management in Wireless Communication Systems: Theory and Applications*, Vol. 2010, Article ID 939340, 12 pages, 2010. [Open access article.]
- “Noise Enhanced Hypothesis-Testing in the Restricted Bayesian Framework,” (with Suat Bayram and Sinan Gezici). *IEEE Transactions on Signal Processing*, Vol. 25, No. 8, pp. 3972 - 3989, August 2010.
- “Throughput Scaling of Wireless Networks with Random Connections,” (with Shengshan Cui, Alexander M. Haimovich, Oren Somekh and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 25, No. 8, pp. 3793 - 3806, August 2010.
- “Secure Communications with Insecure Feedback: Breaking the High-SNR Ceiling,” (with Tùng Kim). *IEEE Transactions on Information Theory*, Vol. 25, No. 8, pp. 3700 - 3711, August 2010.
- “Threshold-Based Relay Selection for Detect-and-Forward Relaying in Cooperative Wireless Networks,” (with Furuzan Atay Onat, Yijia Fan and Halim Yanikomeroglu). *EURASIP Journal on Wireless Communications and Networking*, Volume 2010, Article ID 721492, 9 pages, 2010. [Open access article.]
- “Low-Complexity Joint Data Detection and Channel Equalisation for Highly Mobile Orthogonal Frequency Division Multiplexing Systems,” (with Hakan Dogan and Erdal Panayircı). *IET Communications*, Vol. 4, No. 8, pp. 1000 - 1011, 2010.
- “Multi-hop MIMO Relay Networks: Diversity-Multiplexing Trade-off Analysis,” (with Deniz Gündüz, Amir Khojastepour and Andrea Goldsmith). *IEEE Transactions on Wireless Communications*, Vol. 9 No. 5, pp. 1738 - 1747, May 2010.
- “Channel Coding Rate in the Finite Blocklength Regime,” (with Yury Polyanskiy and Sergio Verdú). *IEEE Transactions on Information Theory*, Vol. 56, No. 5, pp. 2307 - 2359, May 2010. [Recipient of the 2011 IEEE Information Theory Paper Award.]
- “Uplink Synchronization in OFDMA Spectrum-Sharing Systems,” (with Luca Sanguinetti and Michele Morelli). *IEEE Transactions on Signal Processing*, Vol. 25, No. 5, pp. 2771 - 2782, May 2010.
- “Rateless Coding for MIMO Fading Channels: Performance Limits and Code Construction,” (with Yijia Fan, Lifeng Lai and Elza Erkip). *IEEE Transactions on Wireless Communications*, Vol. 9, No. 4, pp. 1288 - 1292, April 2010.
- “An Auctioning Mechanism for Green Radio,” (with Cristina Comanciu, Narayan Mandayam and Jean-Marie Gorce). *Journal of Communications and Networks - Special Issue on Green Radio: Energy Efficiency in Wireless Networks*, Vol. 12, No. 2, pp. 114 - 121, April 2010.
- “A Vector Generalization of Costa’s Entropy-Power Inequality with Applications,” (with Ruo-heng Liu, Tie Liu and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 56, No. 4, pp. 1865 - 1879, April 2010.
- “A Distributed MAC Scheme Supporting Voice Services in Mobile Ad Hoc Networks,” (with Hai Jiang, Ping Wang and Weihua Zhuang). *Wireless Communications and Mobile Computing*, Vol. 10, No. 4, pp. 547- 558, April 2010.

- “Mobile Element Assisted Cooperative Localization for Wireless Sensor Networks with Obstacles,” (with Hongyang Chen, Qingjiang Shi, Rui Tan and Kaoru Sezaki). *IEEE Transactions on Wireless Communications*, Vol. 9, No. 3, pp. 956 - 963, March 2010.
- “Frame Detection and Timing Acquisition for OFDM Transmissions with Unknown Interference,” (with Luca Sanguinetti and Michele Morelli). *IEEE Transactions on Wireless Communications*, Vol. 9, No. 3, pp. 1226 - 1236, March 2010.
- “Improving Wireless Physical Layer Security Via Cooperating Relays,” (with Lun Dong, Zhu Han and Athina P. Petropulu). *IEEE Transactions on Signal Processing*, Vol. 58, No. 3, pp. 1875 - 1888, March 2010.
- “Frequency-domain Correlation: An Asymptotically Optimum Approximation of Quadratic Likelihood Ratio Detectors,” (with Wenyi Zhang and Zhi Quan). *IEEE Transactions on Signal Processing*, Vol. 25, No. 3, pp. 969 - 979, March 2010.
- “MIMO Radar Using Compressive Sampling,” (with Yao Yu and Athina Petropulu). *IEEE Journal of Selected Topics in Signal Processing - Issue on MIMO Radar and Its Applications*, Vol. 4, No. 1, pp. 146 - 163, February 2010.
- *“Towards Utility-Optimal Random Access Without Message Passing,” (with Jiaping Liu, Alexandre Proutière, Yung Yi and Mung Chiang). *Wireless Communications and Mobile Computing - Special Issue on Recent Advances in Wireless Communications and Networks*, Vol. 10, No. 1, pp. 115 - 128, January 2010.
- “Time Delay Estimation in Dispersed Spectrum Cognitive Radio Systems,” (with Fatih Kocak, Hasari Celebi, Sinan Gezici, Khalid A. Qarake and Huseyin Arslan). *EURASIP Journal on Advances in Signal Processing - Special Issue on Advanced Signal Processing for Cognitive Radio Networks*, Volume 2010, Article ID 675959, 10 pages, 2010. [Open access article.]
- “Performance of Selection Relaying and Cooperative Diversity,” (with Abdulkareem Adinoyi, Yijia Fan, Halim Yanikomeroglu and Furaih Al-Shaalan). *IEEE Transactions on Wireless Communications*, Vol. 8, No. 12, pp. 5790 - 5795, December 2009.
- “Distributed MIMO Systems for Nomadic Applications Over a Symmetric Interference Channel,” (with Osvaldo Simeone, Oren Somekh and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 55, No. 1, pp. 5558 - 5574, December 2009.
- “On the Sum-Capacity of Degraded Gaussian Multiaccess Relay Channels,” (with Lalitha Sankar and Narayan B. Mandayam). *IEEE Transactions on Information Theory*, Vol. 55, No. 12, pp. 5394 - 5411, December 2009.
- “Energy-Efficient Resource Allocation in Wireless Networks with Quality-of-Service Constraints,” (with Farhad Meshkati, Stuart C. Schwartz and Radu Balan). *IEEE Transactions on Communications*, Vol. 57, No. 11, pp. 3406 - 3414, November 2009.
- “An ESPRIT-Based Approach for Initial Ranging in OFDMA Systems,” (with Luca Sanguinetti and Michele Morelli). *IEEE Transactions on Communications*, Vol. 57, No. 11, pp. 3225 - 3229, November 2009.
- “Collaborative Cyclostationary Spectrum Sensing for Cognitive Radio Systems,” (with Jarmo Lundén, Visa Koivunen and Anu Huttunen). *IEEE Transactions on Signal Processing*, Vol. 57, No. 11, pp. 4182 - 4195, November 2009.
- “Opportunistic Relaying in Wireless Networks,” (with Shengshan Cui, Alexander M. Haimovich and Oren Somekh). *IEEE Transactions on Information Theory*, Vol. 55, No. 11, pp. 5121 - 5137, November 2009.
- “On the Diversity Gain of AF and DF Relaying with Noisy CSI at the Source Transmitter,” (with Tùng Kim). *IEEE Transactions on Information Theory*, Vol. 55, No. 11, pp. 5064 - 5073, November 2009.
- “Probabilistic Coherence and Proper Scoring Rules,” (with Joel B. Predd, Robert Seiringer, Elliott H. Lieb, Daniel Osherson, and Sanjeev R. Kulkarni). *IEEE Transactions on Information Theory*, Vol. 55, pp. 4786 - 4792, No. 10, October 2009.
- “Cognitive Multiple Access Channels: Optimal Power Allocation for Weighted Sum Rate Maximization,” (with Lan Zhang, Yan Xin and Ying-Chan Liang). *IEEE Transactions on Communications*, Vol. 57, No. 9, pp. 2754 - 2762, September 2009.

- “Capacity Bounds for Peak-Constrained Multiantenna Wideband Channels,” (with Ulrich G. Schuster, Giuseppe Durisi and Helmut Bölcskei). *IEEE Transactions on Communications*, Vol. 57, No. 9, pp. 2686 - 2696, September 2009.
- “On Unbounded Path-loss Models: Effects of Singularity on Wireless Network Performance Evaluation,” (with Hazer Inaltekin, Mung Chiang and Stephen B. Wicker). *IEEE Journal on Selected Areas in Communications - Special Issue on Stochastic Geometry and Random Graphs for Wireless Networks*, Vol. 27, No. 7, pp. 1078 - 1092, September 2009.
- “Non-Cooperative Waveform Adaptation Games in Multiple Access Communications,” (with Stefano Buzzi and Daniela Saturnino). *IEEE Signal Processing Magazine - Special Issue on Game Theory in Signal Processing and Communications*, Vol. 26, No. 5, pp. 64 - 76, September 2009.
- “Queue Backpressure Random Access in Multi-hop Wireless Networks: Optimality and Stability,” (with Jiaping Liu, Alexander L. Stolyar and Mung Chiang). *IEEE Transactions on Information Theory*, Vol. 55, No. 9, pp. 4087- 4098, September 2009.
- “Source and Channel Coding of Correlated Sources Over Multiuser Channels,” (with Deniz Gündüz, Elza Erkip and Andrea Goldsmith). *IEEE Transactions on Information Theory*, Vol. 55, No. 9, pp. 3927- 3944, September 2009.
- “Cooperative Multiplexing: Toward Higher Spectral Efficiency in Multi-antenna Relay Networks,” (with Yijia Fan, Chao Wang and John S. Thompson). *IEEE Transactions on Information Theory*, Vol. 55, No. 9, pp. 3909 - 3926, September 2009.
- “Robust Cognitive Beamforming With Partial Channel State Information,” (with Lan Zhang, Ying-Chang Liang and Yan Xin). *IEEE Transactions on Wireless Communications*, Vol. 8, No. 8, pp. 4143 - 4153, August 2009.
- “A Comprehensive Study of Repetition-coded Protocols in Multi-user Multi-relay Networks,” (with Chao Wang, Yijia Fan and John S. Thompson). *IEEE Transactions on Wireless Communications*, Vol. 8, No. 8, pp. 4329 - 4339, August 2009.
- “A Robust Ranging Scheme for OFDMA-based Networks,” (with Michele Morelli and Luca Sanguinetti). *IEEE Transactions on Communications*, Vol. 57, No. 8, pp. 2441- 2452, August 2009.
- “Compound Wiretap Channels,” (with Yingbin Liang, Gerhard Kramer and Shlomo Shamai). *EURASIP Journal on Wireless Communications and Networking - Special Issue on Wireless Physical Layer Security*, Vol. 2009, Article ID 142374, 12 pages, 2009. [Open access article.] [Recipient of the 2014 EURASIP Best Paper Award.]
- “An MMSE Approach to Secrecy Capacity of the MIMO Gaussian Wiretap Channel,” (with Ronit Bustin, Ruoheng Liu and Shlomo Shamai). *EURASIP Journal on Wireless Communications and Networking - Special Issue on Wireless Physical Layer Security*, Vol. 2009, Article ID 370970, 8 pages, 2009. [Open access article.]
- “Secrecy Capacity of a Class of Orthogonal Relay Eavesdropper Channels,” (with Vaneet Aggarwal, Lalitha Sankar and A. Robert Calderbank). *EURASIP Journal on Wireless Communications and Networking - Special Issue on Wireless Physical Layer Security*, Vol. 2009, Article ID 494696, 14 pages, 2009. [Open access article.]
- “Downlink Multicell Processing with Limited Backhaul Capacity,” (with Osvaldo Simeone, Oren Somekh and Shlomo Shamai). *EURASIP Journal on Advanced Signal Processing - Special Issue on Multiuser MIMO Transmission with Limited Feedback, Cooperation, and Coordination*, Vol. 2009, Article ID 840814, 10 pages, 2009. [Open access article.]
- “Fairness, Stability and Performance: A Flow-level Study on Non-convex and Time-varying Regions,” (with Jiaping Liu, Alexandre Proutière, Yung Yi and Mung Chiang). *IEEE Transactions on Information Theory*, Vol. 55, No. 8, pp. 3437 - 3456, August 2009.
- “Uplink Macro Diversity with Limited Backhaul Capacity,” (with Amichai Sanderovich, Oren Somekh and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 55, No. 8, pp. 3457 - 3478, August 2009.
- “Weighted Cross-Layer Cooperative Beamforming for Wireless Networks,” (with Lun Dong and Athina P. Petropulu). *IEEE Transactions on Signal Processing*, Vol. 57, No. 8, pp. 3240 - 3256, August 2009.

- “Distributed Source Coding Using Raptor Codes for Hidden Markov Sources,” (with Maria Fresia and Luc Vandendorpe). *IEEE Transactions on Signal Processing*, Vol. 57, No. 7, pp. 2868 - 2875, July 2009.
- “Autocorrelation-Based Decentralized Sequential Detection of OFDM Signals in Cognitive Radios,” (with Sachin Chaudhari and Visa Koivunen). *IEEE Transactions on Signal Processing*, Vol. 57, No. 7, pp. 2690 - 2700, July 2009.
- “One Shot Schemes for Decentralized Quickest Change Detection,” (with Olympia Hadjiliadis and Hongzhong Zhang). *IEEE Transactions on Information Theory*, Vol. 55, No. 7, pp. 3346 - 3359, July 2009.
- “Energy Efficiency-Delay Tradeoffs in CDMA Networks: A Game-Theoretic Approach,” (with Farhad Meshkati and Stuart C. Schwartz). *IEEE Transactions on Information Theory*, Vol. 55, No. 7, pp. 3220 - 3228, July 2009.
- “How Much Information Can One Get from a Wireless Ad Hoc Sensor Network over a Correlated Random Field?” (with Youngchul Sung and Heejung Yu). *IEEE Transactions on Information Theory*, Vol. 55, No. 6, pp. 2827 - 2847, June 2009.
- “Compound Multiple Access Channels with Partial Cooperation,” (with Osvaldo Simeone, Deniz Gündüz, Andrea Goldsmith and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 55, No. 6, pp. 2425 - 2441, June 2009.
- *“Physical Layer Security in Broadcast Networks,” (with Yingbin Liang and Shlomo Shamai). *Security and Communications Networks*, Vol. 2, No. 3, pp. 227 - 238, May/June, 2009.
- “High Performance Cooperative Transmission Protocols Based on Multiuser Detection and Network Coding,” (with Zhu Han and Xin Zhang). *IEEE Transactions on Wireless Communications*, Vol. 55, No. 5, pp. 2352 - 2361, May 2009.
- “Opportunistic Collaborative Beamforming with One-Bit Feedback,” (with Simon Pun and D. Richard Brown, III). *IEEE Transactions on Wireless Communications*, Vol. 8, No. 5, pp. 2629 - 2641, May 2009.
- “Finding All Small Error-Prone Substructures in LDPC Codes,” (with Chih-Chun Wang and Sanjeev R. Kulkarni). *IEEE Transactions on Information Theory*, Vol. 55, No. 5, pp. 1976 - 1999, May 2009.
- *“High Capacity Relay Protocols for Wireless Networks,” (with Yijia Fan, Ioannis Krikidis, Chao Wang and John Thompson). *Journal of Communications and Networks*, Vol. 11, No. 2, pp. 196 - 206, April 2009.
- “A Collaborative Training Algorithm for Distributed Learning,” (with Joel B. Predd and Sanjeev R. Kulkarni). *IEEE Transactions on Information Theory*, Vol. 55, No. 4, pp. 1856 - 1871, April 2009.
- “On the Throughput of Secure Hybrid-ARQ Protocols for Gaussian Block-Fading Channels,” (with Xiaojun Tang, Ruoheng Liu and Predrag Spasojevic). *IEEE Transactions on Information Theory*, Vol. 55, No. 4, pp. 1575 - 1591, April 2009.
- “Energy-Efficient Resource Allocation in Multipath CDMA Channels with Bandlimited Waveforms,” (with Valeria Massaro and Stefano Buzzi). *IEEE Transactions on Signal Processing*, Vol. 57, No. 4, pp. 1494 - 1510, April 2009.
- “A Simple Distributed Antenna Processing Scheme for Cooperative Diversity,” (with Yijia Fan, Abdulkareem Adinoyi, John S. Thompson and Halim Yanikomeroglu). *IEEE Transactions on Communications*, Vol. 57, No. 3, pp. 626 - 629, March 2009.
- “Large System Spectral Analysis of Covariance Matrix Estimation,” (with Husheng Li). *IEEE Transactions on Information Theory*, Vol. 55, No. 3, pp. 1395 - 1422, March 2009.
- “Optimal Multiband Joint Detection for Spectrum Sensing in Cognitive Radio Networks,” (with Zhi Quan, Shuguang Cui and Ali H. Sayed). *IEEE Transactions on Signal Processing*, Vol. 57, No. 3, pp. 1128 - 1140, March 2009.
- “Secrecy Capacity Region of a Multi-Antenna Gaussian Broadcast Channel with Confidential Messages,” (with Ruoheng Liu). *IEEE Transactions on Information Theory*, Vol. 55, No. 3, pp. 1235 - 1249, March 2009.

- “Asymptotic Analysis of Outage Region in CDMA MIMO Systems,” (with Husheng Li). *IEEE Transactions on Information Theory*, Vol. 55, No. 3, 1206 - 1217, March 2009.
- *“Position Estimation Via Ultra-Wide-Band Signals,” (with Sinan Gezici). *Proceedings of the IEEE - Special Issue on Ultra-Wideband*, Vol. 97, No. 2, pp. 386 - 403, February 2009.
- “Authentication over Noisy Channels,” (with Lifeng Lai and Hesham El Gamal). *IEEE Transactions on Information Theory*, Vol. 55, No. 2, pp. 906 - 916, February 2009.
- “Capacity of Cognitive Interference Channels With and Without Secrecy,” (with Yingbin Liang, Anelia Somekh-Baruch, Shlomo Shamai and Sergio Verdú). *IEEE Transactions on Information Theory*, Vol. 55, No. 2, pp. 604 - 619, February 2009.
- “Distributed Transmit Beamforming: Challenges and Recent Progress,” (with Raghu Mudumbai, Upamanyu Madhow and D. Richard Brown, III). *IEEE Communications Magazine - Special Issue on Advances in Cooperative and Relay Communications*, Vol. 47, No. 2, pp. 102 - 110, February 2009.
- “Optimal Selection of Channel Sensing Order in Cognitive Radio,” (with Hai Jiang, Lifeng Lai and Rongfei Fan). *IEEE Transactions on Wireless Communications*, Vol. 8, No. 1, pp. 297 - 307, January 2009.
- “Fundamental Limits on Time Delay Estimation in Dispersed Spectrum Cognitive Radio Systems,” (with Sinan Gezici, Hasari Celebi and Huseyin Arslan). *IEEE Transactions on Wireless Communications*, Vol. 8, No. 1, pp. 78 - 83, January 2009.
- “Coalition Games with Cooperative Transmission: A Cure for the Curse of Boundary Nodes in Selfish Packet-Forwarding Wireless Networks,” (with Zhu Han). *IEEE Transactions on Communications*, Vol. 57, No. 1, pp. 203 - 213, January 2009.
- “Local Base Station Cooperation Via Finite-Capacity Links for the Uplink of Linear Cellular Networks,” (with Osvaldo Simeone, Oren Somekh and Shlomo Shamai). *IEEE Transactions on Information Theory*, Vol. 55, No. 1, pp. 190 - 204, January 2009.
- “Adaptive Cross-Layer Distributed Energy-Efficient Resource Allocation Algorithms for Wireless Data Networks,” (with Stefano Buzzi and Daniela Saturnino). *EURASIP Journal on Advances in Signal Processing - Special Issue on Cross-Layer Design for the Physical, MAC, and Link Layer in Wireless Systems*, Vol. 2009, Article ID 532607, 14 pages, 2009. [Open access article.]
- “Information Theoretic Security,” (with Yingbin Liang and Shlomo Shamai). *Foundations and Trends in Communications and Information Theory*, Vol. 5, Nos. 4 - 5, pp. 355 - 580, 2009. [Also published in monograph form by Now Publishers, Hanover, MA.]
- “Redefinition of Max-Min Fairness in Multi-hop Wireless Networks,” (with Ping Wang, Hai Jiang and Weihua Zhuang). *IEEE Transactions on Wireless Communications*, Vol. 7, No. 12, pp. 4786 - 4791, December 2008.
- “Aggregating Forecasts of Chance from Incoherent and Abstaining Experts,” (with Joel B. Predd, Daniel Osherson and Sanjeev R. Kulkarni). *Decision Analysis*, Vol. 5, No. 4, pp. 177 - 189, December 2008.
- “Collaborative Wideband Sensing for Cognitive Radios,” (with Zhi Quan, Shuguang Cui and Ali H. Sayed). *IEEE Signal Processing Magazine - Special Issue on Signal Processing for Cognitive Radio Networks*, Vol. 25, No. 6, pp. 60 - 73, November 2008.
- “Buffering in a Three-Node Relay Network,” (with Bing Xia, Yijia Fan and John Thompson). *IEEE Transactions on Wireless Communications*, Vol. 7, No. 11, pp. 4492 - 4496, November 2008.
- “Time-Slotted Round-Trip Carrier Synchronization for Distributed Beamforming,” (with D. Richard Brown, III). *IEEE Transactions on Signal Processing*, Vol. 56, No. 11, pp. 5630 - 5643, November 2008.
- “The Wiretap Channel with Noisy Feedback: Encryption over the Channel,” (with Lifeng Lai and Hesham El-Gamal). *IEEE Transactions on Information Theory*, Vol. 54, No. 11, pp. 5059 - 5067, November 2008.
- “Service Time Analysis of a Distributed Wireless Medium Access Control Scheme,” (with Hai Jiang, Ping Wang and Weihua Zhuang). *IEEE Transactions on Wireless Communications*, Vol. 7, No. 10, pp. 3988 - 3998, October 2008.

- “Energy Efficiency in Multi-hop CDMA Networks: A Game Theoretic Analysis Considering Operating Costs,” (with Sharon Betz). *IEEE Transactions on Signal Processing*, Vol. 56, No. 10, pp. 5181 - 5190, October 2008.
- “The Continuous-Time Peak-to-Average Power Ratio of OFDM Signals Using Complex Modulation Schemes,” (with Daniel Wong and Simon Pun). *IEEE Transactions on Communications*, Vol. 56, No. 9, pp. 1390 - 1393, September 2008.
- “Optimal Power Allocation for Distributed Detection over MIMO Channels in Wireless Sensor Networks,” (with Xin Zhang and Mung Chiang). *IEEE Transactions on Signal Processing*, Vol. 56, No. 9, pp. 4124 - 4140, September 2008.
- “Auction-based Resource Allocation for Cooperative Communications,” (with Jianwei Huang, Zhu Han and Mung Chiang). *IEEE Journal on Selected Areas in Communications - Special Issue on Game Theory in Communication Systems*, Vol. 26, No. 7, pp. 1226 - 1237, September 2008.
- “On the Best 2-CUSUM Stopping Rule for Quickest Detection of Two-Sided Alternatives in a Brownian Motion Model,” (with Olympia Hadjiliadis). *Teoriya Veroyatnostei i ee Primeneniya*, Vol. 53, No. 3, pp. 610 - 622, 2008. [Also appears in the English-language version *Theory of Probability and Its Applications*, Vol. 53, No.3, pp. 537 - 547, 2009.]
- “Iterative (“Turbo”) Multiuser Detectors for Impulse Radio Systems,” (with Eran Fishler and Sinan Gezici) *IEEE Transactions on Wireless Communications*, Vol. 7, No. 8, pp. 2964 - 2974, August 2008.
- “Optimal Time to Change Premiums,” (with Erhan Bayraktar). *Mathematical Methods of Operations Research*, Vol. 68, No. 1, pp. 125 - 158, August 2008
- “Lossy Joint Source-Channel Coding Using Raptor Codes,” (with Ozgun Bursalioglu, Maria Fresia and Giuseppe Caire). *International Journal of Digital Multimedia Broadcasting - Special Issue on Iterative Decoding and Cross-Layering Techniques for Multimedia Broadcasting and Communication*, Volume 2008, Article ID 124685, 19 pages, 2008. [Open access article].
- “A Cross-Layer Approach to Collaborative Beamforming for Wireless Ad Hoc Networks,” (with Lun Dong and Athina Petropulu). *IEEE Transactions on Signal Processing*, Vol. 56, No. 7, pp. 2981 - 2993, July 2008.
- “Secure Communication over Fading Channels,” (with Yingbin Liang and Shlomo Shamai). *IEEE Transactions on Information Theory - Special Issue on Information Theoretic Security*, Vol. 54, No. 6, pp. 2470 - 2492, June 2008.
- “Performance of Rake Receivers in IR-UWB Networks Using Energy-Efficient Power Control,” (with Giacomo Bacci and Marco Luise). *IEEE Transactions on Wireless Communications*, Vol. 7, No. 6, pp. 2289 - 2299, June 2008.
- “Two-Step Time of Arrival Estimation for Pulse Based Ultra-Wideband Systems,” (with Sinan Gezici, Zafer Shainoglu, Andreas F. Molisch and Hisashi Kobayashi). *EURASIP Journal on Advances in Signal Processing - Special Issue on Cooperative Localization in Wireless Ad Hoc and Sensor Networks*, Vol. 2008, Article ID 529134, 11 pages, 2008. [Open access article.]
- “Throughput of Cellular Systems with Conferencing Mobiles and Cooperative Base-Station,” (with Osvaldo Simeone, Oren Somekh, Gerhard Kramer and Shlomo Shamai). *EURASIP Journal on Wireless Communications and Networking - Special Issue on Multiuser/Multiterminal Communications*, Article ID 652325, 14 pages, 2008. [Open access article.]
- “Bayesian Sequential Change Diagnosis,” (with Savas Dayanik and Christian Goulding). *Mathematics of Operations Research*, Vol. 33, No. 2, pp. 475 - 496, May 2008.
- “Asymptotic Analysis of Large Cooperative Relay Networks Using Random Matrix Theory,” (with Zhu Han and Husheng Li). *EURASIP Journal on Advances in Signal Processing - Special Issue on Wireless Cooperative Networks*, Vol. 2008, Article ID 235867, 15 pages, 2008. [Open access article.]
- “Energy Efficient Power Control Is (Almost) Equivalent for DS-CDMA and TH-UWB,” (with Giacomo Bacci and Marco Luise). *Electronics Letters*, Vol. 44, No. 8, 555 - 556, April 10, 2008.
- “A Unified Approach to Energy-Efficient Power Control in Large CDMA Systems,” (with Farhad Meshkati, Dongning Guo and Stuart C. Schwartz). *IEEE Transactions on Wireless Communications*, Vol. 7, No. 4, pp. 1208 - 1216, April 2008.

- “Joint Receiver and Transmitter Optimization for Energy-Efficient Multiple-Access Communications,” (with Stefano Buzzi). *IEEE Journal on Selected Areas in Communications - Special Issue on Multiuser Detection for Advanced Communication Systems and Networks*, Vol. 26, No. 3, pp. 459 - 472, April 2008.
- “Joint Source and Channel Coding for MIMO Systems: Is It Better to Be Robust or Quick?,” (with Tim Holliday and Andrea Goldsmith). *IEEE Transactions on Information Theory*, Vol. 54, No. 4, pp. 1393 - 1405, April 2008.
- “Multisource Bayesian Sequential Change Detection,” (with Savas Dayanik and Semih O. Sezer). *Annals of Applied Probability*, Vol. 18, No. 2, pp. 552 - 559, 2008.
- “Multiple Access Channels with Confidential Messages,” (with Yingbin Liang). *IEEE Transactions on Information Theory*, Vol. 54, No. 3, pp. 976 - 1002, March 2008.
- “Sensor Configuration and Activation for Field Detection in Large Sensor Arrays,” (with Youngchul Sung, Xin Zhang and Lang Tong). *IEEE Transactions on Signal Processing*, Vol. 56, No. 2, pp. 447 - 453, February 2008.
- *“Game Theory and Power Control in Ultrawideband Networks,” (with Giacomo Bacci and Marco Luise). *Physical Communication*, Vol. 1, No. 1, pp. 21 - 39, 2008.
- “Sequential Multi-Hypothesis Testing for Compound Poisson Processes,” (with Savas Dayanik and Semih O. Sezer). *Stochastics*, Vol. 80, No. 1, pp. 19 - 50, 2008.
- *“Lifetime Improvement in Wireless Sensor Networks Via Collaborative Beamforming and Cooperative Transmission,” (with Zhu Han). *IET Microwaves, Antennas & Propagation - Special Issue on Antenna Systems and Propagation for Future Wireless Communications*, Vol. 1, No. 6, pp. 1103 - 1110, December 2007.
- “Recovering Multiplexing Loss Through Successive Relaying Using Repetition Coding,” (with Yijia Fan, Chao Wang and John Thompson). *IEEE Transactions on Wireless Communications*, Vol. 6, No. 12, pp. 4484 - 4493, December 2007.
- “Energy-Efficient Power Control in Impulse Radio UWB Wireless Networks,” (with Giacomo Bacci, Marco Luise and Antonia Tulino). *IEEE Journal of Selected Topics in Signal Processing - Special Issue on Performance Limits of Ultra-Wideband Systems*, Vol. 1, No. 3, pp. 508 - 520, October 2007.
- “Resource Allocation for Wireless Fading Relay Channels: Max-Min Solution,” (with Yingbin Liang and Venugopal Veeravalli). *IEEE Transactions on Information Theory - Special Issue on Models, Theory and Codes for Relaying and Cooperation in Communication Networks*, Vol. 53, No. 10, pp. 3432 - 3453, October 2007.
- “Estimation Diversity and Energy Efficiency in Distributed Sensing,” (with Shuguang Cui, Jinjun Xiao, Andrea Goldsmith and Zhi-Quan Luo). *IEEE Transactions on Signal Processing*, Vol. 55, No. 9, pp. 4683 - 4695, September 2007.
- “The Trade-off Between Processing Gains of an Impulse Radio UWB System in the Presence of Timing Jitter,” (with Sinan Gezici, Andreas F. Molisch and Hisashi Kobayashi). *IEEE Transactions on Communications*, Vol. 55, No. 8, pp. 1504 - 1515, August 2007.
- “A Game Theoretic Approach to Energy Efficient Modulation in CDMA Networks with Delay QoS Constraints,” (with Farhad Meshkati, Andrea Goldsmith and Stuart C. Schwartz). *IEEE Journal on Selected Areas in Communications - Special Issue on Non-cooperative Behavior in Networking*, Vol. 25, No. 6, pp. 1069 - 1078, August 2007.
- “Performance Analysis of Iterative Channel Estimation and Multiuser Detection in Multipath DS-SS Channels,” (with Husheng Li and Sharon Betz). *IEEE Transactions on Signal Processing*, Vol. 55, No. 5, pp. 1981 - 1993, May 2007.
- “Energy-Efficient Resource Allocation in Wireless Networks: An Overview of Game-Theoretic Approaches,” (with Farhad Meshkati and Stuart C. Schwartz). *IEEE Signal Processing Magazine - Special Issue on Resource-Constrained Signal Processing, Communications and Networking*, Vol. 24, No. 3, pp. 58 - 68, May 2007.
- “Quickest Detection of a Minimum of Two Poisson Disorder Times,” (with Erhan Bayraktar). *SIAM Journal on Control and Optimization*, Vol. 46, No. 1, pp. 308 - 331, March 2007.

- “On Energy Efficient Hierarchical Cross-Layer Design: Joint Power Control and Routing for Ad Hoc Networks,” (with Cristina Comaniciu). *EURASIP Journal on Wireless Communications and Networking - Special Issue on Wireless Mobile Ad Hoc Networks*, Vol. 2007, Article ID 60707, 9 pages, 2007. [Open access article]
- “Finite-Dimensional Bounds on Z_m and Binary LDPC Codes with Belief Propagation Decoders,” (with Chih-Chun Wang and Sanjeev R. Kulkarni). *IEEE Transactions on Information Theory*, Vol. 53, No. 1, pp. 56 - 81, January 2007.
- “Optimal and Suboptimal Finger Selection Algorithms for MMSE Rake Receivers in Impulse Radio Ultra-Wideband Systems,” (with Sinan Gezici, Mung Chiang and Hisashi Kobayashi). *EURASIP Journal on Wireless Communications and Networking - Special Issue on Ultra-Wideband (UWB) Communication Systems - Technology and Applications*, Vol. 2006, Article ID 84249, 10 pages, 2006. [Open access article.]
- “Spectral Efficiency of Equal-rate DS-CDMA Systems With Multiple Transmit Antennas,” (with Husheng Li). *IEEE Transactions on Wireless Communications*, Vol. 5, No. 12, pp. 3680 - 3688, December 2006.
- “On the Optimality of Equal Gain Combining for Energy Detection of Unknown Signals,” (with Sinan Gezici and Zafer Sahinoglu). *IEEE Communications Letters*, Vol. 10, No. 11, pp. 772 - 774, November 2006.
- “Power Allocation and Spectral Efficiency of DS-CDMA Systems in Fading Channels with Fixed QoS - Part I: Single-rate Case,” (with Husheng Li). *IEEE Transactions on Wireless Communications*, Vol. 5, No. 9, pp. 2516 - 2528, September 2006.
- “Power Allocation and Spectral Efficiency of DS-CDMA Systems in Fading Channels with Fixed QoS - Part II: Multiple-rate Case,” (with Husheng Li). *IEEE Transactions on Wireless Communications*, Vol. 5, No. 9, pp. 2529 - 2538, September 2006.
- “Performance Analysis of Semi-Blind Channel Estimation in Long-code DS-CDMA Systems,” (with Husheng Li). *IEEE Transactions on Signal Processing*, Vol. 54, No. 9, pp. 3383 - 3399, September 2006.
- “Projecting the Forward Rate Flow onto a Finite Dimensional Manifold,” (with Erhan Bayraktar and Li Chen). *International Journal of Theoretical and Applied Finance*, Vol. 9, No. 5, pp. 777 - 785, September 2006.
- “On the Capacity of Mobile Ad Hoc Networks with Delay Constraints,” (with Cristina Comaniciu). *IEEE Transactions on Wireless Communications*, Vol. 5, No. 8, pp. 2061 - 2071, August 2006. [Recipient of the 2007 IEEE Marconi Prize Paper Award in Wireless Communications.]
- “Distributed Learning in Wireless Sensor Networks,” (with Joel B. Predd and Sanjeev R. Kulkarni). *IEEE Signal Processing Magazine - Special Issue on Distributed Signal Processing in Sensor Networks*, Vol. 23, No. 4, pp. 56 - 69, July 2006.
- “A Game-Theoretic Approach to Energy-Efficient Power Control in Multi-Carrier CDMA Systems,” (with Farhad Meshkati, Mung Chiang and Stuart C. Schwartz). *IEEE Journal on Selected Areas in Communications - Special Issue on Advances in Multicarrier CDMA*, Vol. 24, No. 6, pp. 1115 - 1129, June 2006.
- “Uplink User Capacity in a Multicell CDMA System with Hotspot Microcells,” (with Shalinee Kishore, Larry J. Greenstein, and Stuart C. Schwartz). *IEEE Transactions on Wireless Communications*, Vol. 5, No. 6, pp. 1333 - 1342, June 2006.
- “Ultra Wideband Impulse Radio Systems with Multiple Pulse Types,” (with Sinan Gezici, Zafer Sahinoglu and Hisashi Kobayashi). *IEEE Journal on Selected Areas in Communications - Special Issue on Ultrawideband Wireless Communications: Theory and Applications*, Vol. 24, No. 4, pp. 892 - 897, April 2006.
- “Neyman-Pearson Detection of Gauss-Markov Signals in Noise: Closed-Form Error Exponent and Properties,” (with Youngchul Sung and Lang Tong). *IEEE Transactions on Information Theory*, Vol. 52, No. 4, pp. 1335 - 1353, April 2006.
- “Uplink User Capacity in a CDMA System with Hotspot Microcells: Effects of Finite Transmit Power and Dispersion,” (with Shalinee Kishore, Larry J. Greenstein, and Stuart C. Schwartz). *IEEE Transactions on Wireless Communications*, Vol. 5, No. 1, pp. 417 - 426, February 2006.

- “Consistency in Models for Distributed Learning with Communication Constraints,” (with Joel B. Predd and Sanjeev R. Kulkarni). *IEEE Transactions on Information Theory*, Vol. 52, No. 1, pp. 52 - 63, January 2006.
- “On-Off Frequency-Shift Keying for Wideband Fading Channels,” (with Mustafa Gursoy and Sergio Verdú). *EURASIP Journal on Wireless Communications and Networking*, Vol. 2006, No. 1, pp. 1 - 15, 2006. [Recipient of the 2009 EURASIP Best Paper Award.]
- “Density Evolution for Asymmetric Memoryless Channels,” (with Chih-Chun Wang and Sanjeev R. Kulkarni). *IEEE Transactions on Information Theory*, Vol. 51, No. 12, pp. 4216 - 4236, December 2005.
- “An Energy-Efficient Approach to Power Control and Receiver Design in Wireless Data Networks,” (with Farhad Meshkati, Stuart C. Schwartz and Narayan B. Mandayam). *IEEE Transactions on Communications*, Vol. 53, No. 11, pp. 1885 - 1894, November 2005.
- “Collaborative Beamforming for Distributed Wireless Ad Hoc Sensor Networks,” (with Hideki Ochiai, Patrick Mitran and Vahid Tarokh). *IEEE Transactions on Signal Processing*, Vol. 53, No. 11, pp. 4110- 4124, November 2005.
- “Prediction and Tracking of Long Range Dependent Sequences,” (with Erhan Bayraktar and Raghuveer Rao). *Systems and Control Letters*, Vol. 54, No. 11, pp. 1083 - 1090, November 2005.
- “Canonical Time-Frequency, Time-Scale, and Frequency-Scale Representations of Time-Varying Channels,” (with Radu V. Balan, Scott T. Rickard and Sergio Verdú). *Communications in Information and Systems - Special Issue in Honor of Thomas Kailath’s Seventieth Birthday*, Vol. 5, No. 2, pp. 197 - 226, October 2005.
- “On the Tradeoff Between Two Types of Processing Gain,” (with Eran Fishler). *IEEE Transactions on Communications*, Vol. 53, No. 10, pp. 1744 - 1753, October 2005.
- “The Noncoherent Rician Fading Channel - Part I: Structure of the Capacity-Achieving Input,” (with Mustafa Gursoy and Sergio Verdú). *IEEE Transactions on Wireless Communications*, Vol. 4, No. 5, pp. 2193 - 2206, September 2005. [Reprinted in *Advances in Military Mobile Communications and Networks*, J. W. Gowens, II, et al., Eds. IEEE Computer Society: Los Alamitos, CA, 2009.]
- “The Noncoherent Rician Fading Channel - Part II: Spectral Efficiency in the Low-Power Regime,” (with Mustafa Gursoy and Sergio Verdú) *IEEE Transactions on Wireless Communications*, Vol. 4, No. 5, pp. 2207 - 2221, September 2005.
- “Estimation of the Number of Sources in Unbalanced Arrays Via Information Theoretic Criteria,” (with Eran Fishler). *IEEE Transactions on Signal Processing*, Vol. 53, No. 9, pp. 3543 - 3553, September 2005.
- “Localization Via Ultra-Wideband Radios,” (with Sinan Gezici, et al.). *IEEE Signal Processing Magazine - Special Section on Signal Processing for Positioning and Navigation with Applications to Communications*, Vol. 22, No. 4, pp. 70 - 84, July 2005.
- “Performance Evaluation of Impulse Radio UWB Systems with Pulse-Based Polarity Randomization,” (with Sinan Gezici, Andreas Molisch and Hisashi Kobayashi). *IEEE Transactions on Signal Processing*, Vol. 53, No. 7, pp. 2537 - 2549, July 2005.
- “Uplink Throughput in a Single-Macrocell/Single-Microcell CDMA System, with Application to Data Access Points,” (with Shalinee Kishore, Stuart C. Schwartz, and Larry J. Greenstein). *IEEE Transactions on Wireless Communications*, Vol. 4, No. 4, pp. 1302 - 1306, July 2005.
- “Soft Handoff and Uplink Capacity in a Two-Tier CDMA System,” (with Shalinee Kishore, Larry J. Greenstein, and Stuart C. Schwartz). *IEEE Transactions on Wireless Communications*, Vol. 4, No. 3, pp. 1292 - 1301, July 2005.
- “Consistency Problems with Jump-Diffusion Models,” (with Erhan Bayraktar and Li Chen). *Applied Mathematical Finance*, Vol. 12, No. 2, pp. 101 - 119, June 2005.
- “Arbitrary Side Observations in Bandit Problems,” (with Chih-Chun Wang and Sanjeev R. Kulkarni) *Advances in Applied Mathematics - Special Issue Dedicated to Dr. David P. Robbins*, Vol. 34, No. 4, pp. 903 - 938, May 2005.
- “Stochastic Differential Games in a Non-Markovian Setting,” (with Erhan Bayraktar). *SIAM Journal on Control and Optimization*, Vol. 43, No. 5, pp. 1737-1756, 2005.

- “Reduced Complexity Joint Iterative Equalization and Multiuser Detection in Dispersive DS-CDMA Channels,” (with Husheng Li). *IEEE Transactions on Wireless Communications*, Vol. 4, No. 3, pp. 1234 - 1243, May 2005.
- “Arbitrage in Fractal Modulated Black-Scholes Models When the Volatility is Stochastic,” (with Erhan Bayraktar). *International Journal of Theoretical and Applied Finance*, Vol. 8, No. 3, pp. 283 - 300, May 2005.
- “Capacity of Multiple Antenna Systems in Rician Fading,” (with Sudharman K. Jayaweera). *IEEE Transactions on Wireless Communications*, Vol. 4, No. 3, pp. 1102 - 1111, May 2005.
- “An Efficient Low-cost Time-hopping Impulse Radio for High Data Rate Transmission,” (with Andreas Molisch, et al.). *EURASIP Journal on Applied Signal Processing - Special Issue on UWB: State of the Art*, Vol. 2005, No. 3, pp. 397 - 412, 2005.
- “Capacity Regions and Optimal Power Allocation for Groupwise Multiuser Detection in Multipath Fading Channels,” (with Cristina Comaniciu). *IEEE Transactions on Wireless Communications*, Vol. 4, No. 2, pp. 349 - 352, March 2005.
- *“Impact of Channel Estimation Errors on Multiuser Detection Via the Replica Method,” (with Husheng Li). *EURASIP Journal on Wireless Communication and Networking - Special Issue on Advanced Signal Processing Algorithms for Wireless Communications*, Vol. 2005, No. 2, pp. 175 - 186, 2005. [Recipient of the 2006 EURASIP Best Paper Award.]
- “Bandit Problems with Side Observations,” (with Chih-Chun Wang and Sanjeev R. Kulkarni). *IEEE Transactions on Automatic Control*, Vol. 50, No. 3, pp. 338 - 355, March 2005.
- “Quickest Detection of a Random Signal in Background Noise Using a Sensor Array,” (with Taragay Oskiper). *EURASIP Journal on Applied Signal Processing - Special Issue on Advances in Sensor Array Processing Technology*, Vol. 2005, Issue 1, pp. 13 - 24, 2005.
- “On-line Bayesian Activity Detection in DS/CDMA Network,” (with Thanh Ngoc Bui and Vikram Krishnamurthy) *IEEE Transactions on Signal Processing*, Vol. 53, No. 1, pp. 371 - 375, January 2005.
- “Mixed Default Modelling,” (with Li Chen and Damir Filipovic) *Risk*, Vol. 17, No. 11, pp. 111 - 115, November 2004.
- “User Capacity for Synchronous Multirate CDMA Systems with Linear MMSE Receivers,” (with Yingwei Yao and Feng-Wen Sun). *IEEE Transactions on Information Theory*, Vol. 50, No. 11, pp. 2785 - 2793, November 2004.
- “Quadratic Term Structure Models for Risk-Free and Defaultable Rates,” (with Li Chen and Damir Filipovic) *Mathematical Finance*, Vol. 14, No. 4, pp. 515 - 536, October 2004.
- “Call Admission Control in Wireless Multimedia Networks,” (with Raghuvver M. Rao, Cristina Comaniciu and T. V. Lakshman). *IEEE Signal Processing Magazine - Special Issue on Signal Processing for Networking: Cross-Layer Issues*, Vol. 21, No. 5, pp. 51 - 58, September 2004.
- “Low-Complexity Multi-User Detectors for Time Hopping Impulse Radio Systems,” (with Eran Fishler). *IEEE Transactions on Signal Processing*, Vol. 52, No. 9, pp. 2561 - 2571, September 2004.
- “CDMA Downlink Transmission with Transmit Antenna Arrays and Power Control in Multipath Fading Channels,” (with Huaiyu Dai and Laurence Mailaender). *EURASIP Journal on Wireless Communications and Networking - Special Issue on Innovative Signal Transmission and Detection Techniques for Next Generation Cellular CDMA Systems*, Vol. 2004, No. 1, pp. 32 - 45, August 2004.
- “Estimating the Fractal Dimension of the S&P500 Index Using Wavelet Analysis,” (with Erhan Bayraktar and K. Ronnie Sircar). *International Journal of Theoretical and Applied Finance*, Vol. 7, No. 5, pp. 615 - 643, August 2004.
- “Parametric Estimation of Quadratic Term Structure Models of Interest Rates,” (with Li Chen). *Information Technology for Economics and Management*, Vol. 2, No. 1, pp. 37 - 57, June 2004.
- “Memoryless Discrete-Time Signal Detection in Long-range Dependent Noise,” (with Xueshi Yang and Athina P. Petropulu). *IEEE Transactions on Signal Processing*, Vol. 52, No. 6, pp. 1607 - 1619, June 2004.
- “Multiaccess Quantum Channels,” (with Julio I. Concha). *IEEE Transactions on Information Theory*, Vol. 50, No. 5, pp. 725 - 747, May 2004.

- “A RAKE-based Iterative Receiver for Space-time Block Coded Multipath CDMA,” (with Sudharman K. Jayaweera). *IEEE Transactions on Signal Processing*, Vol. 52, No. 3, pp. 796 - 806, March 2004.
- “Downlink Capacity of Interference-Limited MIMO Systems with Joint Detection,” (with Huaiyu Dai and Andreas Molisch). *IEEE Transactions on Wireless Communications*, Vol. 3, No. 2, pp. 442 - 453, March 2004.
- “A Multi-pass Approach to Joint Data and Channel Estimation in Long-Code CDMA Systems,” (with Stefano Buzzi). *IEEE Transactions on Wireless Communications*, Vol. 3, No. 2, pp. 612 - 626, March 2004.
- “Blind Detection of Synchronous CDMA in Impulsive Channels,” (with Yingwei Yao). *IEEE Transactions on Signal Processing*, Vol. 52, No. 1, pp. 271 - 279, January 2004.
- *“Iterative Multiuser Detection,” *IEEE Signal Processing Magazine - Special Issue on Iterative, Soft Signal Processing for Digital Communications*, Vol. 21, No. 1, pp. 81 - 88, January 2004.
- “Blind Multiuser Detection in Multirate CDMA Based on Cyclic LMS Adaptation,” (with Stefano Buzzi, Vikram Krishnamurthy and Marco Lops). *Wireless Personal Communications*, Vol. 17, pp. 293 - 320, 2003.
- “Asymptotic Spectral Efficiency of Multicell, MIMO Systems with Frequency-Flat Fading,” (with Huaiyu Dai). *IEEE Transactions on Signal Processing - Special Issue on Signal Processing for MIMO Systems*, Vol. 51, No. 11, pp. 2976 - 2988, November 2003.
- “Capacity of Multiple-Antenna Systems with Both Receiver and Transmitter Channel State Information,” (with Sudharman K. Jayaweera). *IEEE Transactions on Information Theory - Special Issue on MIMO Systems*, Vol. 43, No. 10, pp. 2697 - 2709, October 2003.
- “Jointly Optimal Power and Admission Control for Delay Sensitive Traffic in CDMA Networks with LMMSE Receivers,” (with Cristina Comaniciu). *IEEE Transactions on Signal Processing - Special Issue on Signal Processing in Networking*, Vol. 51, No. 8, pp. 2031 - 3042, August 2003.
- “On the Probability of Error in Linear Multiuser Detection,” (with Marat V. Burnashev). *IEEE Transactions on Information Theory*, Vol. 49, No. 8, pp. 1922 - 1941, August 2003.
- “Blind Adaptive Joint Multiuser Detection and Equalization in Dispersive CDMA Channels,” (with Stefano Buzzi and Marco Lops). *IEEE Transactions on Signal Processing*, Vol. 51, No. 7, July 2003.
- “A Two-layer Spreading Code Scheme for Dual-rate DS-CDMA Systems,” (with Yingwei Yao). *IEEE Transactions on Communications*, Vol. 51, No. 6, pp. 873 - 879, June 2003.
- “Robust Multiuser Detection in Frequency-Selective Non-Gaussian Channels,” (with Mario Tanda). *European Transactions on Telecommunications*, Vol. 14, No. 3, pp. 255 - 263, May/June 2003.
- *“Advanced Signal Processing for Powerline Communications,” (with Huaiyu Dai). *IEEE Communications Magazine - special issue entitled “Broadband is Power: Internet Access Through Powerline Networks,”* Vol. 41, No. 5, pp. 100 - 107, May 2003.
- “Performance Analysis of Hotspot Architectures in CDMA Systems,” (with Shalinee Kishore, Larry J. Greenstein and Stuart C. Schwartz). *IEEE Transactions on Wireless Communications*, Vol. 2, No. 2, pp. 364 - 374, March 2003.
- “On Parameter Estimation in Long-Code DS/CDMA Systems: Cramér-Rao Bounds and Least-Squares Algorithms,” (with Stefano Buzzi). *IEEE Transactions on Signal Processing*, Vol. 51, No. 2, pp. 545 - 559, February 2003.
- *“Dynamic Programming in Digital Communications: Viterbi Decoding to Turbo Multiuser Detection,” *Journal of Optimization Theory and Applications*, Vol. 115, No. 3, pp. 629 - 657, December 2002.
- “Blind Adaptive Decorrelating RAKE (DRAKE) Downlink Receiver for Space-Time Block Coded Multipath CDMA,” (with Sudharman K. Jayaweera) *EURASIP Journal on Applied Signal Processing - Special Issue on Multiuser Detection and Blind Estimation*, Vol. 2002, No. 12, pp. 1306 - 1313, December 2002.
- “Multiuser Detection in Flat Fading Non-Gaussian Channels,” (with Mario Tanda). *IEEE Transactions on Communications*, Vol. 50, No. 11, pp. 1769 - 1777, November 2002.
- “Iterative Space-Time Processing for Multiuser Detection in Multipath CDMA Channels,” (with Huaiyu Dai). *IEEE Transactions on Signal Processing*, Vol. 50, No. 9, pp. 2116 - 2127, September 2002.

- “Blind Adaptive Space-Time Multiuser Detection with Multiple Transmitter and Receiver Antennas,” (with Daryl Reynolds and Xiaodong Wang). *IEEE Transactions on Signal Processing*, Vol. 50, No. 6, pp. 1261 - 1276, June 2002.
- “Integrated Voice/Data Call Admission Control for Wireless DS-CDMA Systems,” (with Sumeetpal Singh and Vikram Krishnamurthy). *IEEE Transactions on Signal Processing*, Vol. 50, No. 6, pp. 1483 - 1495, June 2002.
- *“Code-Aided Interference Suppression for DS/CDMA Overlay Systems,” (with Stefano Buzzi and Marco Lops). *Proceedings of the IEEE*, Vol. 90, No. 3, pp. 394 - 435, March 2002.
- “Low Complexity Receiver Structures for Space-time Coded Multiuser Systems,” (with Sudharman K. Jayaweera). *EURASIP Journal on Applied Signal Processing - Special Issue on Space-Time Coding and Its Applications*, Vol. 2002, No. 3, pp. 275 - 288, March 2002.
- “Multiuser Detection for Out-of-Cell Cochannel Interference Mitigation in the IS-95 Downlink,” (with D. Richard Brown, III, Sergio Verdú and C. Richard Johnson, Jr.). *Journal of VLSI Signal Processing Systems - Special Issue on Signal Processing for Wireless Communication Systems*, Vol. 3, Nos. 1 - 3, pp. 217 - 234, March 2002.
- “Turbo Multiuser Detection for Coded DMT VDSL Systems,” (with Huaiyu Dai). *IEEE Journal on Selected Areas in Communications - Special Issue on Multiuser Detection Techniques with Application to Wired and Wireless Communications Systems*, Vol. 20, No. 2, pp. 351 - 362, February 2002.
- “On-Line Activity Detection in a Multiuser Environment Using the Matrix CUSUM Algorithm,” (with Taragay Oskiper). *IEEE Transactions on Information Theory*, Vol. 46, No. 2, pp. 477 - 493, February 2002.
- “A Single-Antenna Blind Receiver for Multiuser Detection in Unknown Correlated Noise,” (with Stefano Buzzi). *IEEE Transactions on Vehicular Technology*, Vol. 51, No. 1, pp. 209 - 215, January 2002.
- “Timing-Free Blind Multiuser Detection in Differentially Encoded DS/CDMA Systems,” (with Stefano Buzzi). *IEEE Transactions on Communications*, Vol. 49, No. 12, pp. 2077 - 2082, December 2001.
- “Reproducing Kernel Hilbert Space Methods for Wide-Sense Self-Similar Processes,” (with Carl J. Nuzman). *Annals of Applied Probability*, Vol 11, No. 4, pp. 1199 - 1219, November 2001.
- “Crosstalk Mitigation in DMT VDSL with Impulse Noise,” (with Huaiyu Dai). *IEEE Transactions on Circuits and Systems - I*, Vol. 47, No. 10, pp. 1205 - 1213, October 2001.
- “Turbo Multiuser Detection: A Primer,” *Journal of Communications and Networks*, Vol. 3, No. 3, pp. 196 - 201, September 2001.
- “Multi-rate Signal Processing on Finite Fields,” (with Sandip Sarkar). *IEE Proceedings - Vision, Signal and Image Processing*, Vol. 148, No. 4, pp. 254 - 263, August 2001.
- “Channel Estimation and Multiuser Detection in Long-Code DS/CDMA Systems,” (with Stefano Buzzi). *IEEE Journal on Selected Areas in Communications - Special Issue on Multiuser Detection Techniques with Application to Wired and Wireless Communications Systems*, Vol. 19, No. 8, pp. 1476 - 1487, August 2001.
- “Eavesdropping in the Synchronous CDMA Channel: An EM-Based Approach,” (with Yingwei Yao). *IEEE Transactions on Signal Processing*, Vol. 49, No. 8, pp. 1748 - 1756, August 2001.
- “On the Performance of Linear Parallel Interference Cancellation,” (with D. Richard Brown, III, Mehul Motani, Venugopal V. Veeravalli and C. Richard Johnson, Jr.). *IEEE Transaction on Information Theory*, Vol. 45, No. 5, pp. 1957 - 1970, July 2001.
- “Turbo-Coded Optical Direct-Detection CDMA System with PPM Modulation,” (with Jin-Young Kim). *Journal of Lightwave Technology*, Vol. 19, No. 3, pp. 312 - 323, March 2001.
- “On the Relative Error Probabilities of Linear Multiuser Detectors,” (with George Moustakides). *IEEE Transactions on Information Theory*, Vol. 47, No. 1, pp. 450 - 456, January 2001.
- *“Active Interference Suppression in CDMA Overlay Systems,” *IEEE Journal on Selected Areas in Communications - Special Issue on Wideband CDMA II*, Vol. 19, No. 1, pp. 4 - 20, January 2001.
- “Turbo-coded Packet Transmission for an Optical CDMA Network,” (with Jin Young Kim). *Journal of Lightwave Technology - Special Issue on Optical Networks*, Vol. 18, No. 12, pp. 1905 - 1916, December 2000.

- “Cyclic Wavelet Transforms for Arbitrary Finite Data Lengths,” (with Sandip Sarkar). *Signal Processing*, Vol. 80, pp. 2541 - 2552, 2000.
- “Suppression of Multiple Narrowband Interferers in a Spread-spectrum Communication System” (with Catharina Carlemalm and Andrew Logothetis). *IEEE Journal on Selected Areas in Communications - Special Issue on Wideband CDMA*, Vol. 18, No. 8, pp. 1365 - 1374, August 2000.
- “Linear Estimation of Self-Similar Processes Via the Lamperti Transformation,” (with Carl J. Nuzman). *Journal of Applied Probability*, Vol. 37, No. 2, pp. 429 - 452, June 2000.
- “Fault Diagnostics Using Statistical Change Detection in the Bispectral Domain,” (with B. Eugene Parker, Jr., et al.). *Mechanical Systems and Signal Processing*, Vol. 14, No. 4, pp. 561 - 570, 2000.
- “Subspace Methods for Blind Adaptive Multiuser Detection,” (with Xiaodong Wang). *ACM/Baltzer Wireless Networks*, Vol. 6, No. 1, pp. 59 - 71, January 2000.
- “Exact Filters for Certain Moments and Stochastic Integrals of Systems with Benes Nonlinearity,” (with Robert J. Elliott and Vikram Krishnamurthy). *IEEE Transactions on Automatic Control*, Vol. 44, No. 10, pp. 1929 - 1933, October 1999.
- “State Coding of Hidden-Markov Linear Predictive Models,” (with Vikram Krishnamurthy). *Journal of Communications and Networks*, Vol. 1, No. 3, pp. 153 - 157, September 1999.
- “Space-Time Multiuser Detection in Multipath CDMA Channels,” (with Xiaodong Wang). *IEEE Transactions on Signal Processing*, Vol. 47, No. 9, pp. 2356 - 2374, September 1999.
- *“Multiuser Detection in Impulsive Channels,” (with Mario Tanda). *Annales des Telecommunications*, Vol. 54, No. 7 - 8, pp. 392 - 400, July - August 1999.
- “Blind Joint Equalization and Multiuser Detection for DS-CDMA in Unknown Correlated Noise,” (with Xiaodong Wang). *IEEE Transactions on Circuits and Systems - II*, Vol. 46, No. 7, pp. 886 - 895, July 1999.
- “Iterative (Turbo) Soft Interference Cancellation and Decoding for Coded CDMA,” (with Xiaodong Wang). *IEEE Transactions on Communications*, Vol. 47, No. 7, pp. 1046 - 1061, July 1999. [Recipient of the 2000 Joint Paper Award of the IEEE Communications and Information Theory Societies.]
- “Maximum Entropy and Robust Prediction on a Simplex,” *IEEE Transactions on Information Theory*, Vol. 43, No. 4, pp. 1150 - 1164, May 1999.
- “Robust Multiuser Detection in Non-Gaussian Channels,” (with Xiaodong Wang). *IEEE Transactions on Signal Processing*, Vol. 47, No. 2, pp. 289 - 305, February 1999.
- “Quickest Detection with Exponential Penalty for Delay,” *Annals of Statistics*, Vol 26, No. 6., pp. 2179 - 2205, December 1998.
- “Adaptive Joint Multiuser Detection and Channel Estimation for Multipath Fading CDMA Channels,” (with Xiaodong Wang). *ACM/Baltzer Wireless Networks - Special Issue on Multiuser Detection in Wireless Communications*, Vol. 4, No. 6, pp. 453 - 470, December 1998.
- “Linear Interpolation Models for Rapidly-sampled Time Series,” (with Lih-Huah Yiin). *Communications in Statistics - Stochastic Models*, Vol. 14, No. 4, 1998.
- “Blind Adaptive Multiuser Detection in Multipath CDMA Channels Based on Subspace Tracking,” (with Xiaodong Wang). *IEEE Transactions on Signal Processing*, Vol. 46, No. 11, pp. 3030 - 3044, November 1998.
- *“Detection of Stochastic Processes,” (with Thomas Kailath). In “Information Theory: 1948 - 1998,” a special issue of the *IEEE Transactions on Information Theory* commemorating the fiftieth anniversary of the field, Vol. 44, No. 6, pp. 2230 - 2259, October 1998. [Also reprinted in *Information Theory: 50 Years of Discovery*, (IEEE Press: New York, 2000).]
- “Robust Adaptive Array for Wireless Communications,” (with Xiaodong Wang). *IEEE Journal on Selected Areas in Communications - Special Issue of Signal Processing for Wireless Communications*, Vol. 16, No. 8, pp. 1352 - 1366, October 1998.
- “James-Stein State Filtering Algorithms,” (with Jonathan Manton and Vikram Krishnamurthy). *IEEE Transactions on Signal Processing*, Vol. 46, No. 9, pp. 2431 - 2447, September 1998.

- “Blind Multiuser Detection: A Subspace Approach,” (with Xiaodong Wang). *IEEE Transactions on Information Theory*, Vol. 42, No. 2, pp. 677 - 690, March 1998.
- “Blind Equalization and Multiuser Detection in Dispersive CDMA Channels,” (with Xiaodong Wang). *IEEE Transactions on Communications*, Vol. 46, No. 1, pp. 91 - 103, January 1998.
- “Blind Adaptive Suppression of Narrowband Digital Interferers from Spread-spectrum Signals,” (with Xiaodong Wang). *Wireless Personal Communications - Special Issue on Interference in Mobile Wireless Systems*, Vol. 6, Nos. 1/2, pp. 69 - 96, January 1998.
- “Code-aided Interference Suppression in DS/CDMA Spread Spectrum Communications - Part II: Parallel Blind Adaptive Implementation,” (with Xiaodong Wang). *IEEE Transactions on Communications*, Vol. 45, No. 9, pp. 1112 - 1122, September 1997.
- “Code-aided Interference Suppression in DS/CDMA Spread Spectrum Communications - Part I: Interference Suppression Capability,” (with Xiaodong Wang). *IEEE Transactions on Communications*, Vol. 45, No. 9, pp. 1101 - 1111, September 1997.
- “Lattice Filters Based on the Delta Operator,” (with Rajiv Vijayan). *IEE Proceedings - Vision, Image and Signal Processing*, Vol. 144, No. 3, pp. 125 - 128, June 1997.
- “Probability of Error in MMSE Multiuser Detection,” (with Sergio Verdú). *IEEE Transactions on Information Theory*, Vol. 41, No. 3, pp. 858 - 871, May 1997.
- “Phase Noise in Coherent Analog AM-WIRNA Optical Links,” (with Robert Taylor and Stephen Forrest). *Journal of Lightwave Technology*, Vol. 15, No. 4, pp. 565 - 575, April 1997.
- “Estimation of 1-Bit Quantized Time-series with Markov Regime,” (with Andrew Logothetis and Vikram Krishnamurthy). *Signal Processing Journal*, Vol. 58, No. 3, pp. 273 - 292, 1997.
- “The Moment Generating Function of the Stopping Time for Linearly Stopped Poisson Processes,” (with James DeLucia). *Communications in Statistics - Stochastic Models*, Vol. 13, No. 2, pp. 275 - 292, 1997.
- *“Distributed Detection with Multiple Sensors - Part II: Advanced Topics,” (with Richard Blum and Saleem A. Kassam). *Proceedings of the IEEE*, Vol. 85, No. 1, pp. 64 - 79, January 1997.
- “Performance Analysis of Sequential Tests Between Poisson Processes,” (with James DeLucia). *IEEE Transactions on Information Theory*, Vol. 41, No. 1, pp. 221 - 238, January 1997.
- “Joint Detection and Estimation in Flat-fading Rayleigh Channels with Impulsive Noise,” (with Xiaodong Wang). *IEEE Communications Letters*, Vol. 1, No. 1, pp. 19 - 21, January 1997.
- “Iterative Multiuser Receivers for the CDMA Channels: An EM-Based Approach,” (with Laurie B. Nelson). *IEEE Transactions on Communications*, Vol. 44, No. 12, pp. 1700 - 1710, December 1996.
- “An Adaptive Decorrelating Detector for Synchronous CDMA Channels,” (with Urbashi Mitra). *IEEE Transactions on Communications*, Vol. 44, No.2, pp. 257 - 268, February 1996.
- “Activity Detection in a Multi-user Environment,” (with Urbashi Mitra). *Wireless Personal Communications - Special Issue on Signal Separation and Cancellation for Personal, Indoor and Mobile Radio Communications*, Vol. 3, Nos. 1 - 2, pp. 149 - 174, January 1996.
- “Asymptotic Analysis of an Algorithm for Parameter Estimation and Identification of 1-bit Quantized Time Series,” (with Vikram Krishnamurthy). *IEEE Transactions on Signal Processing*, Vol. 44, No. 1, pp. 62 - 73, January 1996.
- “Adaptive Decorrelating Detectors for CDMA Systems,” (with Urbashi Mitra). *Wireless Personal Communications*, Vol. 2, No. 4, pp. 415 - 440, 1995/1996.
- “Performance of Optical CDMA Receivers - Part II: Asymptotic Multi-user Efficiency,” (with Laurie B. Nelson). *IEEE Transactions on Communications*, Vol. 43, No. 12, pp. 3015 - 3024, December 1995.
- “A Lower Bound on the Probability of Error in Multihypothesis Testing,” (with Sergio Verdú). *IEEE Transactions on Information Theory*, Vol. 39, No. 6, pp. 1992 - 1994, November 1995.
- “Asymptotic Expansions and Rate of Convergence in Signal Detection,” (with Marat V. Burnashev). *IEEE Transactions on Information Theory*, Vol. 39, No. 6, pp. 1773 - 1787, November 1995.
- “Performance of Optical CDMA Receivers - Part I: Error Probability Analysis,” (with Laurie B. Nelson). *IEEE Transactions on Communications*, Vol. 43, No. 11, pp. 2803 - 2811, November 1995.

- “Effects of Laser Phasedrift on Coherent Optical CDMA,” (with Leslie A. Rusch). *IEEE Journal on Selected Areas in Communications - Special Issue on High-speed Point-to-point Optical Communications Systems*, Vol. 13, No. 3, pp. 577 - 591, April 1995.
- “Multiuser Detection Techniques for Narrowband Interference Suppression in Spread-spectrum Communications,” (with Leslie A. Rusch). *IEEE Transactions on Communications*, Vol. 43, No. 2/3/4, Part III, pp. 1725 - 1737, February/March/April 1995.
- “Adaptive Receiver Algorithms for Near-far Resistant CDMA,” (with Urbashi Mitra). *IEEE Transactions on Communications*, Vol. 43, No. 2/3/4, Part III, pp. 1713 - 1724, February/March/April 1995.
- “Decentralized Sequential Detection with Sensors Performing Sequential Tests,” (with Venugopal V. Veeravalli and Tamer Başar). *Mathematics of Control, Signals and Systems*, Vol. 7, No. 4, pp. 292 - 305, 1994.
- “Neural Network Techniques for Adaptive Multi-user Demodulation,” (with Urbashi Mitra). *IEEE Journal on Selected Areas in Communications - Special Issue on Intelligent Signal Processing in Communications*, Vol. 12, No. 9, pp. 1460 - 1470, December 1994.
- “On Sequential Delay Estimation in Digital Communications Systems,” (with Yossef Steinberg). *IEEE Transactions on Information Theory*, Vol. 38, No. 5, pp. 1327 - 1333, September 1994.
- “Narrowband Interference Suppression in Spread-spectrum CDMA,” (with Leslie A. Rusch). *IEEE Personal Communications*, Vol. 1, No. 3, pp. 14 - 27, August 1994.
- *“The Detection of Non-Gaussian Signals: A Paradigm for Modern Statistical Signal Processing,” (with Lee M. Garth). *Proceedings of the IEEE*, Vol. 82, No. 7, pp. 1061 - 1095, July 1994.
- “Narrowband Interference Suppression in CDMA Spread-spectrum Communications,” (with Leslie A. Rusch). *IEEE Transactions on Communications*, Vol. 42, No. 4, pp. 1969 - 1979, April 1994.
- “Minimax Robust Decentralized Detection,” (with Venugopal V. Veeravalli and Tamer Başar). *IEEE Transactions on Information Theory*, Vol. 38, No. 1, pp. 35 - 40, January 1994.
- “Sequential Amplitude Estimation in Multiuser Communications,” (with Yossef Steinberg). *IEEE Transactions on Information Theory*, Vol. 38, No. 1, pp. 11 - 20, January 1994.
- “Interrelations Between Continuous and Discrete Lattice Filter Structures,” (with Steven R. Weller, Arie Feuer, and Graham C. Goodwin). *IEEE Transactions on Circuits and Systems II: Analog and Digital Signal Processing*, Vol. 40, No. 11, pp. 705 - 713, November 1993.
- “Detection of Stochastic Signals in Non-Gaussian Noise,” *Journal of the Acoustical Society of America*, Vol. 94, No. 5, pp. 2838 - 2850, November 1993.
- “Fast Triangular Factorization of Covariance Matrices of Differenced Time Series,” (with Rajiv Vijayan). *SIAM Journal on Matrix Analysis and Applications*, Vol. 14, No. 4, pp. 1096 - 1102, October 1993.
- “Wavelet Transforms Associated with Finite Cyclic Groups,” (with Giuseppe Caire and Robert L. Grossman). *IEEE Transactions on Information Theory*, Vol. 37, No. 4, pp. 1157 - 1166, July 1993.
- “Decentralized Sequential Detection with a Fusion Center Performing the Sequential Test,” (with Venugopal V. Veeravalli and Tamer Başar). *IEEE Transactions on Information Theory*, Vol. 37, No. 2, pp. 433 - 442, March 1993.
- “Robust System-parameter Identification: The Influence Functional Approach,” (with Michael S. Asato). *International Journal of Robust and Nonlinear Control*, Vol. 2, No. 3, pp. 223 - 237, October 1992.
- *“High-speed Digital Signal Processing and Control,” (with Graham C. Goodwin and Richard H. Middleton). *Proceedings of the IEEE*, Vol. 80, No. 2, pp. 240 - 259, February 1992.
- “On Generalized Signal-to-Noise Ratios in Quadratic Detection,” (with Richard J. Barton). *Mathematics of Control, Signals, and Systems*, Vol. 5, No. 1, pp. 81 - 92, 1992.
- “On the Asymptotic Efficiencies of Robust Detectors,” (with Emily C. Martin). *IEEE Transactions on Information Theory*, Vol. 38, No. 1, pp. 50 - 60, January 1992.
- “Narrowband Interference Suppression in Impulsive Channels,” (with Lee M. Garth). *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 28, No. 1, pp. 15 - 34, January 1992.

- “A Levinson-type Algorithm for Modeling Fast-sampled Data,” (with Rajiv Vijayan, John B. Moore, and Graham C. Goodwin). *IEEE Transactions on Automatic Control*, Vol. 36, No. 3, pp. 314 - 321, March 1991.
- “The Maximum Difference Between the Binomial and Poisson Distributions.” *Statistics and Probability Letters*, Vol. 11, No. 2, pp. 103 - 106, February 1991.
- “Quadratic Detection of Signals with Drifting Phase,” (with Venugopal V. Veeravalli). *Journal of the Acoustical Society of America*, Vol. 89, No. 2, pp. 811 - 819, February 1991.
- “Efficient Estimation of the Class A Parameters Via the EM Algorithm,” (with Serena M. Zabin). *IEEE Transactions on Information Theory*, Vol. 37, No. 1, pp. 60 - 72, January 1991.
- “Nonlinear Techniques for Interference Suppression in Spread-Spectrum Systems,” (with Rajiv Vijayan). *IEEE Transactions on Communications*, Vol. 38, No. 7, pp. 1060 - 1065, July 1990.
- “An RKHS Approach to Robust L^2 Estimation and Signal Detection,” (with Richard J. Barton). *IEEE Transactions on Information Theory*, Vol. 36, No. 3, pp. 579 - 588, May 1990.
- “Recursive Algorithms for Identification of Impulsive Noise Channels,” (with Serena M. Zabin). *IEEE Transactions on Information Theory*, Vol. 36, No. 3, pp. 559 - 578, May 1990.
- “Detection of Broadband Signals in Signal-Dependent Noise,” *Journal of the Acoustical Society of America*, Vol. 87, No. 3, pp. 1227 - 1230, March 1990.
- “Parameter Estimation for Middleton Class A Interference Processes,” (with Serena M. Zabin). *IEEE Transactions on Communications*, Vol. 37, No. 10, pp. 1042 - 1051, October 1989.
- “An Analysis of Nonlinear Direct-sequence Correlators,” (with Behnaam Aazhang). *IEEE Transactions on Communications*, Vol. 37, No. 7, pp. 723 - 731, July 1989.
- “Fine Quantization in Signal Detection and Estimation,” *IEEE Transactions on Information Theory*, Vol. 34, No. 5, pp. 960 - 972, September 1988.
- “Signal Detection in Fractional Gaussian Noise,” (with Richard J. Barton). *IEEE Transactions on Information Theory*, Vol. 34, No. 5, pp. 943 - 959, September 1988.
- “Performance of DS/SSMA Communications in Impulsive Channels - Part II: Hard-limiting Correlation Receivers,” (with Behnaam Aazhang). *IEEE Transactions on Communications*, Vol. 36, No. 1, pp. 88 - 97, January 1988.
- “Single-user Detectors for Multi-user Channels,” (with Sergio Verdú). *IEEE Transactions on Communications*, Vol. 36, No. 1, pp. 50 - 60, January 1988. [Also reprinted in *Wireless Applications of Spread Spectrum Systems*, S. Tantaratana and K. A. Ahmed, Eds. (IEEE Press: Piscataway, NJ, 1998).]
- “Robust Matched Filters for Optical Receivers,” (with Evaggelos A. Geraniotis). *IEEE Transactions on Communications*, Vol. COM-35, No. 12, pp. 1289 - 1296, December 1987.
- “Performance Analysis of DS/SSMA Communications in Impulsive Channels - Part I: Linear Correlation Receivers,” (with Behnaam Aazhang). *IEEE Transactions on Communications*, Vol. COM-35, No. 11, pp. 1179 - 1188, November 1987.
- “Abstract Dynamic Programming Models under Commutativity Conditions,” (with Sergio Verdú). *SIAM Journal on Control and Optimization*, Vol. 25, No. 4, pp. 990 - 1006, July 1987.
- *“Uncertainty Tolerance in Underwater Acoustic Signal Processing,” *IEEE Journal on Oceanic Engineering*, Vol. OE-12, No. 1, pp. 48 - 65, January 1987.
- “Minimax Linear Smoothing for Capacities: The Case of Correlated Signals and Noise,” *IEEE Transactions on Automatic Control*, Vol. AC-31, No. 9, pp. 877 - 878, September 1986.
- “A Reduced-Complexity Quadratic Structure for the Detection of Stochastic Signals,” (with Chein-I Chang). *Journal of the Acoustical Society of America*, Vol. 78, No. 5, pp. 1652 - 1657, November 1985.
- “Minimax Discrimination for Observed Poisson Processes with Uncertain Rate Functions,” (with Evaggelos A. Geraniotis). *IEEE Transactions on Information Theory*, Vol. IT-31, No. 5, pp. 660 - 669, September 1985.
- “Asymptotic Relative Efficiencies of Multistage Detectors,” (with Sawasd Tantaratana). *IEEE Transactions on Information Theory*, Vol. IT-31, No. 5, pp. 710 - 715, September 1985.

- *“Robust Techniques for Signal Processing: A Survey,” (with Saleem A. Kassam). *Proceedings of the IEEE*, Vol. 73, No. 3, pp. 433 - 481, March 1985.
- “Robust Quantization of ϵ -contaminated Data,” *IEEE Transactions on Communications*, Vol. COM-33, No. 3, pp. 218 - 222, March 1985.
- “On Optimum and Nearly Optimum Data Quantization for Signal Detection,” (with Behnaam Aazhang). *IEEE Transactions on Communications*, Vol. COM-32, No. 7, pp. 745 - 751, July 1984.
- “Minimax Linear Observers and Regulators for Stochastic Systems with Uncertain Second-order Statistics,” (with Sergio Verdú). *IEEE Transactions on Automatic Control*, Vol. AC-29, No. 6, pp. 499 - 511, June 1984.
- “On Minimax Robustness: A General Approach and Applications,” (with Sergio Verdú). *IEEE Transactions on Information Theory*, Vol. IT-30, No. 2, pp. 328 - 340, March 1984.
- “Robust Wiener-Kolmogorov Theory,” (with Kenneth S. Vastola). *IEEE Transactions on Information Theory*, Vol. IT-30, No. 2, pp. 316 - 327, March 1984.
- “On the p -point Uncertainty Class,” (with Kenneth S. Vastola). *IEEE Transactions on Information Theory*, Vol. IT-30, No. 2, pp. 374 - 376, March 1984.
- “Robust Matched Filters,” *IEEE Transactions on Information Theory*, Vol. IT-29, No. 5, pp. 677 - 687, September 1983.
- “Minimax Control of Linear Stochastic Systems with Noise Uncertainty,” (with Douglas P. Looze, Kenneth S. Vastola and John C. Darragh). *IEEE Transactions on Automatic Control*, Vol. AC-28, No. 3, pp. 882 - 888, September 1983.
- “Signal Selection for Robust Matched Filtering,” (with Sergio Verdú). *IEEE Transactions on Communications*, Vol. COM-31, No. 5, pp. 667 - 670, May 1983.
- “An Analysis of the Effects of Spectral Uncertainty on Wiener Filtering,” (with Kenneth S. Vastola). *Automatica*, Vol. 19, No. 3, pp. 289 - 293, May 1983.
- “Minimax Robust Discrete-time Matched Filters,” (with Sergio Verdú). *IEEE Transactions on Communications*, Vol. COM-31, No. 2, pp. 208 - 215, February 1983.
- “Robust Signal Processing for Communication Systems,” (with Saleem A. Kassam). *IEEE Communications Magazine*, Vol. 21, No. 1, pp. 20 - 28, January 1983.
- “Asymptotic Efficiencies of Truncated Sequential Tests,” (with Sawasd Tantaratana). *IEEE Transactions on Information Theory*, Vol. IT-28, No. 6, pp. 911 - 923, November 1982.
- “Signal Detection in the Presence of Weakly Dependent Noise - Part II: Robust Detection,” *IEEE Transactions on Information Theory*, Vol. IT-28, No. 5, pp. 744 - 753, September 1982.
- “Signal Detection in the Presence of Weakly Dependent Noise - Part I: Optimum Detection,” *IEEE Transactions on Information Theory*, Vol. IT-28, No. 5, pp. 735 - 744, September 1982.
- “On the Performance of Two Simplified Approaches to Memoryless Discrete Time Detection in Dependent Noise,” (with Donald R. Halverson and Gary L. Wise). *Journal of Combinatorics, Information, and System Sciences*, Vol. 7, No. 3, pp. 171 - 179, September 1982.
- “A State Estimation Algorithm for Linear Systems Driven Simultaneously by Wiener and Poisson Processes,” (with Samuel P. Au and Abraham H. Haddad). *IEEE Transactions on Automatic Control*, Vol. AC-27, No. 3, pp. 617 - 626, June 1982.
- “Minimax Linear Smoothing for Capacities,” *Annals of Probability*, Vol. 10, No. 2, pp. 504 - 507, May 1982.
- “A Relative Efficiency Study of Some Popular Detectors,” (with Douglas L. Michalsky and Gary L. Wise). *Journal of the Franklin Institute*, Vol. 313, No. 3, pp. 135 - 148, March 1982.
- “A Two-stage Version of the Kassam-Thomas Nonparametric Dead-zone Limiter Detection System,” (with Sawasd Tantaratana). *Journal of the Acoustical Society of America*, Vol. 67, No. 1, pp. 110 - 115, January 1982.
- “The Rate-distortion Function on Classes of Sources Determined by Spectral Capacities,” *IEEE Transactions on Information Theory*, Vol. IT-28, No. 1, pp. 19 - 26, January 1982.
- “The Segment Method as an Alternative to Minimax in Hypothesis Testing,” (with Bruce H. Krogh). *Information Sciences*, Vol. 27, pp. 9 - 37, 1982.

- “Minimax State Estimation for Linear Stochastic Systems with Noise Uncertainty,” (with Douglas P. Looze). *IEEE Transactions on Automatic Control*, Vol. AC-26, No. 4, pp. 902 - 906, August 1981.
- “Input Amplitude Compression in Digital Signal-detection Systems,” (with Yousef Rivani). *IEEE Transactions on Communications*, Vol. COM-29, No. 5, pp. 707 - 710, May 1981.
- “Optimum Memoryless Tests Based on Dependent Data,” *Journal of Combinatorics, Information, and System Sciences*, Vol. 6, No. 2, pp. 111 - 122, 1981.
- “Robust Decision Design Using a Distance Criterion,” *IEEE Transactions on Information Theory*, Vol. IT-26, No. 5, pp. 575 - 587, September 1980.
- “The Analysis and Design of Data Quantization Schemes for Stochastic Signal Detection Systems,” (with Dimitrios Alexandrou). *IEEE Transactions on Communications*, Vol. COM-28, No. 7, pp. 983 - 991, July 1980.
- “Memoryless Quantizer-Detectors for Constant Signals in m -Dependent Noise,” (with John B. Thomas). *IEEE Transactions on Information Theory*, Vol. IT-26, No. 4, pp. 423 - 432, July 1980.
- “On Robust Wiener Filtering,” *IEEE Transactions on Automatic Control*, Vol. AC-25, No. 3, pp. 531 - 536, June 1980.
- “A General Relationship between Two Quantizer Design Criteria,” (with Dimitrios Alexandrou). *IEEE Transactions on Information Theory*, Vol. IT-26, No. 2, pp. 210 - 212, March 1980.
- “Minimum-Distortion Functional for One-Dimensional Quantisation,” *Electronics Letters*, Vol. 16, pp. 23 - 25, January 1980.
- “On Robust Detection of Discrete-Time Stochastic Signals,” (with Mohamed Mami and John B. Thomas). *Journal of the Franklin Institute*, Vol. 309, No. 1, pp. 29 - 53, January 1980.
- “Memoryless Discrete-Time Detection of a Constant Signal in m -Dependent Noise,” (with John B. Thomas). *IEEE Transactions on Information Theory*, Vol. IT-25, No. 1, pp. 54 - 61, January 1979.
- “Asymptotically Robust Quantization for Detection,” (with John B. Thomas). *IEEE Transactions on Information Theory*, Vol. IT-24, No. 2, pp. 222 - 229, March 1978.
- “Locally-Optimum Detection of Discrete-Time Stochastic Signals in Non-Gaussian Noise,” (with John B. Thomas). *Journal of the Acoustical Society of America*, Vol. 63, No. 1, pp. 75 - 80, January 1978.
- “Applications of Ali-Silvey Distance Measures in the Design of Generalized Quantizers for Binary Decision Systems,” (with John B. Thomas). *IEEE Transactions on Communications*, Vol. COM-25, No. 9, pp. 893 - 900, September 1977.
- “Optimum Quantization for Local Decisions Based on Independent Samples,” (with John B. Thomas). *Journal of the Franklin Institute*, Vol. 303, No. 6, pp. 549 - 561, June 1977. [Also reprinted in *Benchmark Papers in Electrical Engineering and Computer Science: Quantization*, P.F. Swaszek, Ed. (Dowden, Hutchinson & Ross: Stroudsburg, PA, 1985).]

Invited Plenary and Keynote Addresses:

- “Spreading Processes with Mutations.” Presented at the *Netherlands Platform Complex Systems Annual Conference*, Utrecht, The Netherlands, April 17, 2024.
- “Integrated Sensing and Communications: Some Recent Advances.” Presented at the *NSF Workshop on the Convergence of Smart Sensing Systems, Applications, Analytics, and Decision Making*, Washington, DC, December 7 - 8, 2023.
- “Learning at the Wireless Edge.” Presented at the *16th International Symposium on Signals, Circuits, and Systems*, Iasi, Romania, July 13 - 14, 2023.
- “Federated Learning in V2X Networks.” Presented at the *International Conference on Computing, Networking and Communications*, Honolulu, HI, February 20 - 22, 2023.
- “Federated Learning at the Wireless Edge.” Presented at the *11th International Conference on Computational Data and Social Networks (CSoNet 2022)*, Tampa, FL, December 5 - 7, 2022.
- “Federated Learning at the Wireless Edge.” Presented at the *14th International Conference on Wireless Communications and Signal Processing*, Nanjing, China, November 1 - 3, 2022.
- “Challenge-Response Physical Layer Authentication Over Partially Controllable Channels.” Presented at the *Workshop on Physical Layer Security in 6G Security Protocols*, in conjunction with the *2022 IEEE Future Networks World Forum*, October 12, 2022.
- “Federated Learning in V2X Networks.” Presented at the *2022 IEEE 96th Vehicular Technology Conference: VTC2022-Fall*, London-Beijing, September 26 - 29, 2022.
- “Machine Learning at the Wireless Edge.” Presented at the *Fifth International Balkan Conference on Communications and Networking*, Sarajevo, Bosnia-Herzegovina, August 22 - 26, 2022.
- “Smart Grid: The Internet of Energy.” Presented at the *Summer Meeting of the Heidelberg Academy of Sciences and Humanities*, Heidelberg, Germany, July 16, 2022.
- “Federated Learning at the Wireless Edge.” Presented at the *Workshop on Edge Artificial Intelligence for 6G*, held in conjunction with the *IEEE International Conference on Communications*, Seoul, South Korea, May 16 - 20, 2022.
- “Machine Learning at the Wireless Edge.” Presented online at *Machine Learning for Communications*, Haifa, Israel, March 27, 2022.
- “Machine Learning at the Wireless Edge.” Presented online at the *2nd Global 6G Conference*, Nanjing, China, March 22 - 24, 2022.
- “Towards 6G Wireless Communication Networks: Vision, Enabling Technologies, and New Paradigm Shifts.” Presented online at *5G Italy*, Rome, Italy, November 30 - December 2, 2021.
- “Towards 6G Wireless Communication Networks: Vision, Enabling Technologies, and New Paradigm Shifts.” Presented online at the *Panel on Edge Computing, 6G and Satellite Communications*, European Parliament, December 1, 2021.
- “Towards 6G Wireless Communication Networks: Vision, Enabling Technologies, and New Paradigm Shifts.” Presented online at the *21st IEEE International Conference on Communication Technology*, Tianjin, China, October 13 - 16, 2021.
- “Towards 6G Wireless Communication Networks: Vision, Enabling Technologies, and New Paradigm Shifts.” Presented online at the *IEEE 5G World Forum*, Montreal, Canada, October 13 - 15, 2021.
- “Towards 6G Wireless Communication Networks: Vision, Enabling Technologies, and New Paradigm Shifts.” Presented online at the *XXXIX Brazilian Telecommunications and Signal Processing Symposium*, Fortaleza, Brazil, September 26 - 29, 2021.
- “Towards 6G Wireless Communication Networks: Vision, Enabling Technologies, and New Paradigm Shifts.” Presented online at the *12th International Symposium on Image and Signal Processing and Analysis*, Zagreb, Croatia, September 13 - 15, 2021.
- “Towards 6G Wireless Communication Networks: Vision, Enabling Technologies, and New Paradigm Shifts.” Presented online at the *17th International Symposium on Wireless Communication Systems*, Berlin, Germany, September 6 - 9, 2021.

- “Towards 6G Wireless Communication Networks: Vision, Enabling Technologies, and New Paradigm Shifts.” Presented online at the *World Artificial Intelligence Conference*, Shanghai, July 9 - 11, 2021.
- “Towards 6G Wireless Communication Networks: Vision, Enabling Technologies, and New Paradigm Shifts.” Presented online at the *International Workshop on Future Communications*, Singapore University of Technology and Design, Singapore, June 23 - 24, 2021.
- “Towards 6G Wireless Communication Networks: Vision, Enabling Technologies, and New Paradigm Shifts.” Presented online at the *International Symposium 7-in-1*, Aarhus University, Denmark, June 21 - 22, 2021.
- “Machine Learning at the Wireless Edge.” Presented online at *Cryptic Commons*, Aalborg University, Denmark May 20 - 21, 2021.
- “Machine Learning at the Wireless Edge.” Presented online at the *6th International Conference on Wireless Communications, Signal Processing and Networking*, Chennai, India, March 25 - 27, 2021.
- “Physical Layer Security: Security for 6G.” Presented online at the *6G Knowledge Lab Opening and 36th Virtual GISFI Workshop*, Aarhus University, Denmark, December 21 - 22, 2020.
- “Learning at the Wireless Edge.” Presented online at the *ITU AI/ML in 5G Challenge*, December 17, 2020.
- “Opportunities in 6G Wireless Communications.” Presented online at the *Strategy Workshop for 2030 ICT Technology*, Ministry of Economic Affairs, Taipei, Taiwan, December 11 - 12, 2020.
- “Learning at the Wireless Edge.” Presented at the *IEEE Workshop on AI/ML in Networks and Cloud*, Rutgers University, New Brunswick, NJ, February 17, 2020.
- “Learning at the Wireless Edge.” Presented at the *IEEE International Symposium on Dynamic Spectrum Access Networks (DySPAN)*, Newark, NJ, November 11 - 14, 2019.
- “Machine Learning Meets Mobile Communications.” Presented at the *Conasense Symposium Four in One*, Aarhus University, Herning, Denmark, October 14 - 16, 2019.
- “Learning at the Edge.” Presented at the *Second IEEE 5G Workshop on Tactical and First Responder Networks*, Laurel, MD, October 7, 2019.
- “Machine Learning Meets Mobile Communications.” Presented at the *30th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communication*, Istanbul, Turkey, September 8 - 11, 2019.
- “Fundamentals for IoT Networks: Secure and Low-Latency Communications.” Presented at the *IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “Fundamentals for IoT Networks: Secure and Low-Latency Communications.” Presented at the *ACM International Conference on Distributed Computing and Networking*, Bangalore, India, January 4 - 7, 2019.
- “Security in the Internet of Things: Information Theoretic Insights.” Presented at the *6th IEEE Global Symposium on Signal and Information Processing*, Anaheim, CA, November 26 - 29, 2018.
- “Fundamentals for Low Latency Communications.” Presented at the *52nd Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, October 28 - 31, 2018.
- “Smart Grid: Games, Games and More Games.” Presented at the *7th EAI International Conference on Game Theory for Networks (GAMENETS)*, Knoxville, TN, May 9 - 10, 2017.
- “Privacy-Utility Tradeoffs in the Smart Grid.” Presented at the *International Conference on Computing, Networking and Communications*, Santa Clara, CA, January 26 - 29, 2017.
- “Secure Broadcasting with Independent Secret Keys.” Presented at the *Symposium on Information Theoretic Approaches to Security and Privacy, 2016 IEEE Global Conference on Signal and Information Processing*, Washington, DC, December 7 - 9, 2016.
- “Feedback in Wireless Networks: Recent Results and Discoveries.” Presented at the *2015 Workshop on High Mobility Wireless Communications*, Xi’an, China, October 21 - 23, 2015.
- “Privacy in the Smart Grid: Information, Control and Games.” Presented at the *2015 International Workshop on Advances in Information Coding and Wireless Communications*, Chengdu, China, October 18 - 20, 2015.

- “Anomaly Detection in Large Data Sets.” Presented at the *7th International Conference on Wireless Communications and Signal Processing*, Nanjing, China, October 15 - 17, 2015.
- “Smart Grid: The Role of the Information Sciences.” Presented at the *IEEE International Conference on Communications*, London, UK, June 8 - 12, 2015.
- “Privacy in Networks of Interacting Agents.” Presented at the *IEEE ICC Workshop on Advances in Network Localization and Navigation*, London, UK, June 8 or 12, 2015.
- “Privacy-Utility Tradeoffs for Information Sources.” Presented at the *IEEE Global Conference on Signal and Information Processing (GlobalSIP)*, Atlanta, GA, December 3 - 5, 2014.
- “Security and Privacy of Information Sources: Information Theoretic Insights.” Presented at the *IEEE Conference on Communications and Network Security*, San Francisco, CA, October 29 - 31, 2014.
- “Cooperation in Cognitive Radio Networks.” Presented at the *Inauguration Ceremony of CorteXlab: The Cognitive Radio Testbed of the FIT Project*, INSA, Lyon, France, October 28, 2014.
- “Privacy of Information Sources: Fundamental Limits and Tradeoffs.” Presented at the *IEEE/CIC International Conference on Communications in China*, Shanghai, October 13 - 15, 2014.
- “Games, Privacy and Distributed Inference for the Smart Grid.” Presented at the *KAUST-NSF Conference on Electronic Materials, Devices and Systems for Sustainable Future*, KAUST, Saudi Arabia, February 8 - 10, 2014.
- “Games, Privacy and Distributed Inference for the Smart Grid.” Presented at the *UCLA Smart Grid Thought Leadership Forum*, Los Angeles, CA, October 15, 2013
- “Privacy-Utility Tradeoffs for Data Sources, with Applications in Smart Grid.” Presented at the *27th Annual IFIP WG 11.3 Working Conference on Data Applications Security and Privacy*, Rutgers University, Newark, NJ, July 15 - 17, 2013.
- “Games, Privacy and Distributed Inference for the Smart Grid.” Presented at the *Tenth International Symposium on Wireless Communication Systems*, Ilmenau, Germany, August 27 - 30, 2013.
- “Privacy-Utility Tradeoffs in Biometric and Other Systems.” Presented at the *18th International Conference on Digital Signal Processing*, Santorini, Greece, July 1 - 3, 2013.
- “Feedback in Wireless Networks: Recent Results and Discoveries.” Presented at the *14th IEEE Workshop on Signal Processing Advances in Wireless Communications*, Darmstadt, Germany, June 16 - 19, 2013.
- “The Nonlinear Fourier Transform and Signal Processing.” Presented at the *2013 Constantinides International Workshop on Signal Processing*, London, UK, January 25, 2013.
- “Privacy-Utility Tradeoffs for Data Sources, with Applications in Smart Grid.” Presented at the *6th SmartEN (Smart Management for Sustainable Human Environment) Marie Curie ITN Multi-Disciplinary Workshop*, London, UK, October 8 - 10, 2012.
- “Fundamental Limits on Information Security and Privacy.” Presented at the *2012 World Wide Security and Mobility Conference*, Taipei, Taiwan, September 24, 2012.
- “Privacy-Utility Tradeoffs in Smart Grid Communications.” Presented at the *15th International Symposium on Wireless Personal Multimedia Communications*, Taipei, Taiwan, September 24 - 27, 2012.
- “An Information-Theoretic Approach to Privacy of Data Sources.” Presented at *Wireless Advanced*, King’s College, London, June 25 - 26, 2012.
- “Fundamental Limits on Information Security and Privacy.” Presented at the *IEEE International Conference on Communications*, Ottawa, ON, Canada, June 10 - 15, 2012.
- “Physical Layer Security in Wireless Networks.” Presented at the *2012 Symposium and Summer School on Wireless Communications*, Virginia Tech, Blacksburg, VA, May 20 - June 1, 2012.
- “Bridging the Disciplines in Teaching and Research.” Presented at the *IEEE Integrated STEM Conference*, Ewing, NJ, March 9, 2012.
- “Fundamentals of Cooperation in Cellular Networks.” Presented at the *IEEE Workshop on Multicell Cooperation for Next Generation Communication Systems* (in conjunction with the *2011 IEEE Global Communications Conference*), Houston, TX, December 9, 2011.

- “Privacy-Utility Tradeoffs in the Smart Grid.” Presented at the *IEEE International Workshop on Smart Grid Communications and Networks* (in conjunction with the *2011 IEEE Global Communications Conference*), Houston, TX, December 5, 2011.
- “Physical Layer Security in Wireless Networks.” Presented at the *Eighth International Symposium on Wireless Communication Systems*, Aachen, Germany, November 6 - 9, 2011.
- “College Admission Games in Wireless Femtocell Networks.” Presented at the *IEEE Workshop on Game Theory and Resource Allocation for 4G* (in conjunction with the *2011 IEEE International Conference on Communications*), Kyoto, Japan, June 5, 2011.
- “Privacy-Utility Tradeoffs of Data Sources.” Presented at *Secure Wireless Networks*, Paris, France, May 20, 2011.
- “Physical Layer Security in Wireless Networks.” Presented at the *2010 IEEE Global Communications Conference*, Miami, FL, December 6 - 10, 2010.
- “The APP and the PHY in Wireless Networks.” Presented at the *21st Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communication*, Istanbul, Turkey, September 26 - 30, 2010.
- “Information and Inference in the Wireless Physical Layer.” Presented at the *Workshop on Information Theoretic Methods in Science and Engineering*, Tampere, Finland, August 17 - 19, 2010.
- “New Directions in Wireless Research.” Presented at the *TNList Academic Summit on IT Vision 2010*, Tsinghua University, Beijing, China, July 12 - 14, 2010.
- “Application-Driven Problems in the Wireless Physical Layer.” Presented at *Wireless Advanced*, King’s College, London, June 27 - 29, 2010.
- “Research on Socio-Technological Networks: Delay of Information Delivery and the Sharing Mart System.” Presented at the *First IEEE International Workshop on Social Networking* (in conjunction with the *2010 IEEE International Conference on Communications*). Cape Town, South Africa, May 23, 2010.
- “Collaborative Signal Processing in Wireless Sensor Networks.” Presented at the *6th International Symposium on Image and Signal Processing*, Salzburg, Austria, September 16 - 18, 2009.
- “APP-PHY Interactions in Wireless Networks.” Presented at the *2009 Canadian Workshop on Information Theory*, Ottawa, ON, Canada, May 13 - 15, 2009.
- “APP-PHY Interactions in Wireless Networks.” Presented at the *4th Annual LIDS Student Conference*, MIT, Cambridge, MA, January 29 - 30, 2009.
- “Node Interaction in Wireless Networks: Competition and Cooperation.” Presented at the *IET Workshop on Wideband and Ultrawideband Systems and Technologies*, London, UK, November 6, 2008.
- “Physical Layer Security in Wireless Networks.” Presented at the *Annual Meeting of the Gruppo Telecomunicazioni Teoria dell’Informazione*, Florence, Italy, June 18, 2008.
- “Information Theory: Past and Present.” Presented at the *First School of Information Theory*, State College, PA, June 1 - 5, 2008.
- “The Future of Wireless Networks: A Researcher’s Perspective.” Presented at the *2008 IEEE International Conference on Communications*, Beijing, China, May 19 - 23, 2008.
- “Physical Layer Security in Wireless Networks.” Presented at the *3rd International Symposium on Communications, Control and Signal Processing*, St. Julians, Malta, March 12 - 14, 2008.
- “Competition and Collaboration in Wireless Networks.” Presented at the *2007 IEEE International Symposium on Information Theory*, Nice, France, June 24 - 29, 2007. [A summary is published in the *IEEE Information Theory Society Newsletter*, Vol. 57, No. 4, pp. 24 - 27, December 2007.]
- “Physical Layer Security in Wireless Networks.” Presented at the *Fifth Workshop on Signal Processing for Wireless Communications*, King’s College, London, UK, June 7 - 9, 2007.
- “Energy and Inference in Wireless Sensor Networks.” Presented at the *2007 IEEE Sarnoff Symposium*, Princeton, NJ, April 30 - May 2, 2007.
- “Energy and Bandwidth in Wideband Systems.” Presented at the *2006 IEEE International Conference on Ultra-Wideband*, Waltham, MA, September 24 - 27, 2006.

- “Signal Processing Across the Layers in Wireless Networks.” Presented at the *2006 European Signal Processing Conference*, Florence, Italy, September 4 - 8, 2006.
- “Energy Efficiency and Distributed Inference in Wireless Sensor Networks.” Presented at the *Fourth Workshop on Signal Processing for Wireless Communications*, King’s College, London, UK, May 30 - 31, 2006.
- “Energy and Inference in Wireless Sensor Networks.” Presented at the *2006 IEEE Communication Theory Workshop*, Dorado, Puerto Rico, May 21 - 24, 2006.
- “Signal Processing Issues in Wireless Sensor Networks.” Presented at the *SPIE Conference on Advanced Signal Processing Algorithms, Architectures and Implementations XV*, San Diego, CA, July 31 - August 4, 2005.
- “Signal Processing and Wireless Networks.” Presented at the *IEEE 7th Emerging Technologies Workshop: Circuits and Systems for 4G Mobile Wireless Communications*, St. Petersburg, Russia, June 23 - 24, 2005.
- “Signal Processing and the Efficiency of Wireless Networks.” Presented at the *2005 IEEE Wireless Communications and Networking Conference*, New Orleans, LA, March 13 - 17, 2005.
- “Signal Processing and the Efficiency of Wireless Networks.” Presented at the *2004 International Conference on Signal Processing and Communications*, Indian Institute of Science, Bangalore, India, December 11 - 14, 2004.
- “Challenges of the Wireless Revolution.” Presented at the *31st International Symposium of the National Academy of Sciences*, Republic of Korea, Seoul, October 17, 2003.
- “Signal Processing in Communications: Possibilities and Probabilities.” Presented at the *2002 IEEE Global Telecommunications Conference*, Taipei, Taiwan, November 17 - 20, 2002.
- “Turbo Fusion.” Presented at the *Fifth International Conference on Information Fusion*, Annapolis, MD, July 8 - 11, 2002.
- “Advances in Multiuser Detection.” Presented at the *2001 IEEE-EURASIP Workshop on Nonlinear Signal and Image Processing*, Baltimore, MD, June 3-6, 2001.
- “Advances in Multiuser Detection.” Presented at the *Third IEEE Signal Processing Workshop on Signal Processing Advances in Wireless Communications*, Taoyuan, Taiwan, March 20 - 23, 2001.
- “The Wireless Revolution: Signal Processing as the ‘Great Enabler’.” Presented at the *Audio Engineering Society 18th International Conference: Audio for Information Appliances*, Burlingame, CA, March 2001
- “The Wireless Revolution: Signal Processing as the ‘Great Enabler’.” Presented at the *International Conference on Signal Processing Applications and Technology 2000*, Dallas, TX, October 16 - 19, 2000.
- “The Wireless Revolution: A Signal Processing Perspective.” Presented at the *2000 IEEE “Silver Anniversary” Conference on Acoustics, Speech and Signal Processing*, Istanbul, Turkey, June 5 - 9, 2000
- “Enabling the Wireless Revolution.” Presented at the *20th Biennial Symposium on Communications*, Queens University Kingston, Ontario, May 29 - 31, 2000.
- “Intelligent Signal Processing in Wireless Systems.” Presented at the *1999 IEEE International Symposium on Intelligent Signal Processing and Communication Systems*, Phuket, Thailand, December 8 - 10, 1999.
- “The Role of Signal Processing in Wireless Communications.” Presented at the *1999 IASTED Conference on Signal and Image Processing*, Nassau, The Bahamas, October 18 - 21, 1999.
- “Multiuser Detection: Interference Suppression as Integer Regression.” Presented at the *1999 IEEE Information Theory Workshop on Detection, Estimation, Classification and Imaging*, Santa Fe, NM, February 23 - 27, 1999.
- “Adaptive Multiuser Detection.” Presented at the *First Signal Processing Workshop on Signal Processing Applied to Wireless Communications*, Paris, France, April 15 - 18, 1997.
- “Finite-field Wavelet Transforms.” Presented at the *Canadian Workshop on Information Theory*, Lac Delage, PQ, Canada, May 28 - 31, 1995.

“Maximum Entropy and Robust Prediction on a Simplex.” Presented at the *1994 IEEE/IMS Workshop on Information Theory and Statistics*, Alexandria, VA, October 27 - 29, 1994.

Conference Papers (Asterisks Denote Invited Papers):

- “Neuromorphic Semantic Communications with Wake-Up Radios,” (with Jiechen Chen, Sangwoo Park, Petar Popovski and Osvaldo Simeone). *Proceedings of the 25th International Workshop on Signal Processing Advances in Wireless Communications*, Lucca, Italy, September 10 - 13, 2024, to appear.
- “Power Control for Resilient Communication Systems with a Secret-Key Budget,” (with Karl-Ludwig Besser and Rafael F. Schaefer). *Proceedings of the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, Valencia, Spain, September 2 - 5, 2024, to appear.
- “Lightweight Digital Self-Interference Cancellation,” (with Lifeng Lin, Dongsheng Zheng, Jingze Ding and Bingli Jiao). *Proceedings of the 13th IEEE/CIC International Conference on Communications in China*, Hangzhou, China, August 7 - 9, 2024, to appear.
- “Environment Sensing-aided Beam Prediction with Transfer Learning for Smart Factory,” (with Yuan Feng, Chuanbing Zhao, Feifei Gao, Yong Zhang and Shaodan Ma). *Proceedings of the 13th IEEE/CIC International Conference on Communications in China*, Hangzhou, China, August 7 - 9, 2024, to appear.
- “On the Complexity of Computing the Minimum Mean Square Error of Causal Prediction,” (with Holger Boche and Volker Pohl). *Proceedings of the 2024 American Control Conference*, Toronto, ON, July 8 - 12, 2024.
- “PAC Learnability for Reliable Communication over Discrete Memoryless Channels,” (with Jiakun Liu and Wenyi Zhang). *Proceedings of the 2024 IEEE International Symposium on Information Theory*, Athens, Greece, July 7 - 12, 2024.
- “Integrated Sensing and Communication in the Finite Blocklength Regime,” (with Homa Nikbakht, Michle Wigger and Shlomo Shamai). *Proceedings of the 2024 IEEE International Symposium on Information Theory*, Athens, Greece, July 7 - 12, 2024.
- “An Achievable Scheme for Channels with an Amplitude Constraint using Walsh Functions,” (with Ron Dabora and Shlomo Shamai). *Proceedings of the 2024 IEEE International Symposium on Information Theory*, Athens, Greece, July 7 - 12, 2024.
- “On the Rate-Distortion Function for Sampled Cyclostationary Gaussian Processes with Memory,” (with Zikun Tan and Ron Dabora). *Proceedings of the 2024 IEEE International Symposium on Information Theory*, Athens, Greece, July 7 - 12, 2024.
- “Multivariate Priors and the Linearity of Optimal Bayesian Estimators under Gaussian Noise,” (with Leighton P. Barnes, Alex Dytso and Jingbo Liu). *Proceedings of the 2024 IEEE International Symposium on Information Theory*, Athens, Greece, July 7 - 12, 2024.
- “On the Non-Computability of Convex Optimization Problems,” (with Andrea Grigorescu, Holger Boche and Rafael F. Schaefer). *Proceedings of the 2024 IEEE International Symposium on Information Theory*, Athens, Greece, July 7 - 12, 2024.
- “Equivalence of Empirical Risk Minimization to Regularization of the Family of f-Divergences,” (with Francisco Daunas, Iñaki Esnaolo and Samir Perlaza). *Proceedings of the 2024 IEEE International Symposium on Information Theory*, Athens, Greece, July 7 - 12, 2024.
- “SignSGD-FV: Communication-Efficient Distributed Learning through Heterogeneous Edges,” (with Chanho Park and Namyoon Lee). *Proceedings of the 2024 IEEE International Symposium on Information Theory*, Athens, Greece, July 7 - 12, 2024.
- “Gaussian Primitive Diamond Channel: Correlated Noise and Applications,” (with Asif Katz, Michael Peleg and Shlomo Shamai). *Proceedings of the 2023-24 IEEE International Conference on Microwaves, Communications, Antennas, Biomedical Engineering and Electronic Systems*, Tel Aviv, Israel, July 9 - 11, 2024.
- “Blind Co-channel Interference Cancellation Using Fast Fourier Convolutions,” (with Mostafa Naseri, Eli de Poorter, Ingrid Moerman and Adnan Shahid). *Proceedings of the 2024 IEEE Vehicular Technology Conference - Spring (Recent Results)*, Singapore, June 24 - 27, 2024.
- “Reliability and Latency of Wireless Communication Systems with a Secret-Key Budget,” (with Karl-Ludwig Besser and Rafael F. Schaefer). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.

- “Integrated Safe Motion Planning and Distributed Cyclic Delay Diversity,” (with Kyeong Jin Kim and Yuming Zhu). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “Model-Based Learning for Network Clock Synchronization in Half-Duplex TDMA Networks,” (with Itai Zino and Ron Dabora). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “Integrated Sensing and Communications for Statistical-QoS Provisioning Over 6G M-MIMO Mobile Networks Using FBC,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “Statistical Delay and Error-Rate Bounded QoS Provisioning for Rate Splitting Based 6G Mobile Wireless Networks in the Non-Asymptotic Regime,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “Sphere Packing Analysis for Performance Trade-off in Joint Communications and Sensing - Part I: General Principle,” (with Husheng Li and Zhu Han). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “Sphere Packing Analysis for Performance Trade-off in Joint Communications and Sensing - Part II: Fourier Analysis of Volume,” (with Husheng Li and Zhu Han). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “Distributed Stochastic Optimization with Random Communication and Computational Delays: Optimal Policies and Performance Analysis,” (with Siyuan Yu and Wei Chen). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “On the Information Leakage Performance of Secure Finite Blocklength Transmissions over Rayleigh Fading Channels,” (with Milad Tatar Mamaghani, Xiangyun Zhou, Nan Yang and A. Lee Swindlehurst). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024. [Best Paper Award]
- “Stacked Intelligent Metasurface Performs a 2D DFT in the Wave Domain for DOA Estimation,” (with Jiancheng An, Chau Yuen, Marco Di Renzo, Mérouane Debbah and Lajos Hanzo). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “Digital Versus Analog Transmissions for Federated Learning over Wireless Networks,” (with Jiacheng Yao, Wei Xu, Zhaohui Yang, Xiaohu You and Mehdi Bennis). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024. [Best Paper Award]
- “Characterization of the Complexity of Computing the Capacity of Colored Noise Gaussian Channels,” (with Holger Boche, Andrea Grigorescu and Rafael F. Schaefer). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “On the Solvability of Resource Allocation Problems for Wireless Systems on Digital Computers,” (with Holger Boche, Andrea Grigorescu and Rafael F. Schaefer). *Proceedings of the 2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “RIS-Empowered LEO Satellite Networks for 6G: Promising Usage Scenarios and Future Directions,” (with Mesut Toka, Byungju Lee, Jaehyup Seong, Aryan Kaushik, Juhwan Lee, Jungwoo Lee, Namyoon Lee and Wonjae Shin). To be presented at the *2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “Secure Federated Learning for Cognitive Radio Sensing,” (with Magorzata Wasilewska and Hanna Bogucka). To be presented at the *2024 IEEE International Conference on Communications*, Denver, CO, June 9 - 13, 2024.
- “Prescribed Robustness in Optimal Power Flow,” (with Robert Mieth). *Proceedings of the XXIII Power Systems Computation Conference*, Paris-Saclay, France, June 4 - 7, 2024.
- “Vehicular Intelligence at the Edge: A Decentralized Federated Learning Approach for Technology Recognition,” (with Hojjat Navidan, Merkebu Girmay, Mohamed Seif, Ingrid Moerman and Adnan Shahid). *Proceedings of the 2024 IEEE Vehicular Networking Conference*, Kobe, Japan, May 29 - 31, 2024.
- “Over-the-air Aggregation-based Federated Learning for Technology Recognition in Multi-RAT Networks,” (with Merkebu Girmay, Mohamed Seif, Vasilis Maglogiannis, Dries Naudts, Adnan Shahid

- and Ingrid Moerman). *Proceedings of the IEEE International Symposium on Dynamic Spectrum Access Networks (DySPAN)*, Washington, DC, May 13 - 16, 2024.
- “Learning Based Dynamic Cluster Reconfiguration for UAV Mobility Management with 3D Beamforming,” (with Irshad A. Meer, Karl-Ludwig Besser, Mustafa Ozger, Dominic Schupke and Cicek Cavdar). *Proceedings of the IEEE International Conference on Machine Learning for Communication and Networking*, Stockholm, Sweden, May 5 - 8, 2024.
- “Federated Learning via Active RIS Assisted Over-the-Air Computation,” (with Deyou Zhang, Ming Xiao and Mikael Skoglund). *Proceedings of the IEEE International Conference on Machine Learning for Communication and Networking*, Stockholm, Sweden, May 5 - 8, 2024
- “Stochastic Approximation with Delayed Updates: Finite-Time Rates under Markovian Sampling,” (with Arman Abidi, Nicol Dal Fabbro, Luca Schenato, Sanjeev Kulkarni, George J. Pappas, Hamed Hassani and Aritra Mitra). *Proceedings of the 27th International Conference on Artificial Intelligence and Statistics (AISTATS)*, Valencia, Spain, May 2 - 4, 2024
- “YOLO: An Efficient Integrated Sensing and Communications Scheme with Beam Squint in Clutter Environment” (with Hongliang Luo, Feifei Gao, Hai Lin and Shaodan Ma). *Proceedings of the 2024 IEEE Wireless Communications and Networking Conference*, Dubai, UAE, April 21 - 24, 2024.
- “Vision-aided Reference Signal Receiving Power Prediction for Smart Factory,” (with Yuan Feng, Feifei Gao, Xiaoming Tao and Shaodan Ma). *Proceedings of the 2024 IEEE Wireless Communications and Networking Conference*, Dubai, UAE, April 21 - 24, 2024.
- “Trellis Shaping in Joint Communications and Sensing: A Duality to PAPR Mitigation,” (with Husheng Li and Zhu Han). *Proceedings of the 4th IEEE International Symposium on Joint Communications and Sensing*, Leuven, Belgium, March 19 - 21, 2024.
- “Understanding a Power Grid’s Cyber-Physical Interdependence Through Higher-order Motifs,” (with Hao Huang, Mohammad Al-Muhaini and David Flynn). *Proceedings of the 2024 IEEE Conference on Innovative Smart Grid Technologies, North America*, Washington, DC, February 19 - 22, 2024.
- “Inclusion of Reactive Power into Ecological Robustness-Oriented Optimal Power Flow for Enhancing Power System Resilience,” (with Hao Huang and Kate Davis). *Proceedings of the Hawaii International Conference on System Science*, Honolulu, HI, January 3 - 4, 2024.
- “Efficient RL with Impaired Observability: Learning to Act with Delayed and Missing Observations,” (with Minshuo Chen and Mengdi Wang). *Advances in Neural Information Processing Systems* (Proceedings of the Thirty-seventh Conference on Neural Information Processing Systems), Vancouver, BC, December 10 - 16, 2023.
- “The Wiener Theory of Causal Linear Prediction Is Not Effective,” (with Holger Boche and Volker Pohl). *Proceedings of the 62nd IEEE Conference on Decision and Control*, Singapore, December 13 - 15, 2023.
- “On Differential Privacy for Wireless Federated Learning with Non-coherent Aggregation,” (with Mohamed Seif and Andrea J. Goldsmith). *Proceedings of the IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 4 - 8, 2023.
- “Robust Rate-Matching Framework for Multibeam Satellite Communications with Phase Perturbations,” (with Jaehyup Seong, Juha Park, Juhwan Lee, Jungwoo Lee and Wonjae Shin). *Proceedings of the IEEE Workshop on Cellular, UAV and Satellite Communications*, in conjunction with of the *IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 4 - 8, 2023.
- “A Broadcast Channel Framework for Joint Communications and Sensing - Part I: Feasible Region,” (with Husheng Li and Zhu Han). *Proceedings of the IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 4 - 8, 2023.
- “A Broadcast Channel Framework for Joint Communications and Sensing - Part II: Superposition Coding,” (with Husheng Li and Zhu Han). *Proceedings of the IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 4 - 8, 2023.
- “Physical-Layer Challenge-Response Authentication for Drone Networks,” (with Francesco Mazzo, Stefano Tomasin, Hongliang Zhang and Arsenia Chorti). *Proceedings of the IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 4 - 8, 2023.

- “Joint Coding of eMBB and URLLC in Vehicle-to-Everything (V2X) Communications,” (with Homa Nikbakht, Eric Ruzomberka, Michèle Wigger and Shlomo Shamai). *Proceedings of the IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 4 - 8, 2023.
- “Algorithmic Computability of the Capacity of Additive Colored Gaussian Noise Channels,” (with Andrea Grigorescu, Holger Boche and Rafael F. Schaefer). *Proceedings of the IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 4 - 8, 2023. [Best Paper Award]
- “Communication-Constrained Distributed Learning: TSI-Aided Asynchronous Optimization with Stale Gradient,” (with Siyuan Yu and Wei Chen). *Proceedings of the IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 4 - 8, 2023.
- “Channel Capacity of RIS-assisted Symbiotic Radios with Imperfect Knowledge of Channels,” (with Qianqian Zhang, Hu Zhou, Ying-Chang Liang and Wei Zhang). *Proceedings of the IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 4 - 8, 2023.
- “Statistical AoI, Delay, and Error-Rate Bounded QoS Provisioning for Satellite-Terrestrial Integrated Networks,” (with Jingqing Wang and Wenchi Cheng). *Proceedings of the IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 4 - 8, 2023.
- “On Pseudolinear Codes for Correcting Adversarial Errors, (with Eric Ruzomberka, Homa Nikbakht and Christopher G. Brinton). *Proceedings of the 64th IEEE Symposium on Foundations of Computer Science (FOCS 2023)*, Santa Cruz, CA, November 6 - 9, 2023.
- “Random Orthogonalization for Private and Secure Wireless Federated Learning,” (with Sadaf ul Zuhra, Mohamed Seif and Karim Banawan). *Proceedings of the Asilomar Conference on Signals, Systems, and Computers 2023*, Pacific Grove, CA, October 29 - November 1, 2023.
- “Reinforcement Learning Based Dynamic Power Control for UAV Mobility Management,” (with Irshad A. Meer, Karl-Ludwig Besser and Cicek Cavdar). *Proceedings of the Asilomar Conference on Signals, Systems, and Computers 2023*, Pacific Grove, CA, October 29 - November 1, 2023.
- “Motif-Based Reliability Analysis for Cyber-Physical Power Systems,” (with Hamed Binquadhi, Mohammed Al-Muhaini and Hao Huang). *Proceedings of IEEE PES ISGT Europe 2023*, Grenoble, France, October 23 - 26, 2023.
- “Data Valuation from Data-Driven Optimization,” (with Robert Mieth). Presented at the *2023 INFORMS Annual Meeting*, Phoenix, AZ, October 15 -18, 2023.
- “Derandomizing Codes for the Binary Adversarial Wiretap Channel of Type II,” (with Eric Ruzomberka, Homa Nikbakht, Christopher Brinton and David Love). *Proceedings of the 58th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 26 - 29, 2023.
- *“Low Complexity Optimization for Line-of-Sight RIS-Aided Holographic Communications,” (with Juan Carlos Ruiz Sicilia, Marco Di Renzo and Mérouane Debbah). *Proceedings of the 31st European Signal Processing Conference*, Helsinki, Finland, September 4 - 8, 2023.
- “Reconstructing Graph Diffusion History from a Single Snapshot,” (with Ruizhong Qiu, Dingsu Wang, Lei Ying, Yifang Zhang and Hanghang Tong). *Proceedings of the 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining*, Washington, DC, August 14 - 18, 2023.
- “Efficient RL with Impaired Observability: Learning to Act with Delayed and Missing Observations,” (with Minshuo Chen and Mengdi Wang). Presented at the *New Frontiers in Learning, Control, and Dynamical Systems Workshop* at the *International Conference on Machine Learning*, Honolulu, HI, July 23 - 29, 2023.
- “Cellular System Based Integrated Sensing and Communications for Wide-Area Monitoring,” (with Husheng Li and Zhu Han). *Proceedings of the IEEE International Geoscience and Remote Sensing Symposium*, Pasadena, CA, July 16 - 21, 2023.
- “An Extended Model for Ecological Robustness to Capture Power System Resilience,” (with Hao Huang and Katherine R. Davis). *Proceedings of the 2023 IEEE Power & Energy Society General Meeting*, Orlando, FL, July 16 - 20, 2023.
- “ L_1 Optimization in Gaussian Noise: On the Optimality of Linear Estimators,” (with Leighton Barnes and Alex Dytso). *Proceedings of the 2023 IEEE International Symposium on Information Theory*, Taipei, Taiwan, June 25 - 30, 2023.

- “Modeling Statistical Delay, Error-Rate, and Joint-Delay/Error-Rate QoS-Exponents over M-MIMO Mobile Wireless Networks Using FBC,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 2023 IEEE International Symposium on Information Theory*, Taipei, Taiwan, June 25 - 30, 2023.
- “Quickest Inference of Susceptible-Infected Cascades in Sparse Networks,” (with Anirudh Sridhar and Tirza Routtenberg). *Proceedings of the 2023 IEEE International Symposium on Information Theory*, Taipei, Taiwan, June 25 - 30, 2023.
- “The Capacity of Channels with $O(1)$ -Bit Feedback,” (with Eric Ruzomberka and David Love). *Proceedings of the 2023 IEEE International Symposium on Information Theory*, Taipei, Taiwan, June 25 - 30, 2023.
- “The Impact of Data Aggregation on the Validation of the Gibbs Algorithm,” (with Iñaki Esnaola, Samir Perlaza and Gaetan Bisson). *Proceedings of the 2023 IEEE International Symposium on Information Theory*, Taipei, Taiwan, June 25 - 30, 2023.
- “Analysis of the Relative Entropy Asymmetry in the Regularization of Empirical Risk Minimization,” (with Francisco Daunas, Iñaki Esnaola and Samir Perlaza). *Proceedings of the 2023 IEEE International Symposium on Information Theory*, Taipei, Taiwan, June 25 - 30, 2023.
- “Collaborative Mean Estimation over Intermittently Connected Networks with Peer-To-Peer Privacy,” (with Rajarshi Saha, Mohamed Seif, Michel Yemeni and Andrea J. Goldsmith). *Proceedings of the 2023 IEEE International Symposium on Information Theory*, Taipei, Taiwan, June 25 - 30, 2023.
- “Higher-order Spatio-temporal Neural Networks for COVID-19 Forecasting,” (with Sotirios Batsakis and Yuzhou Chen). *Proceedings of the 2023 IEEE International Conference on Acoustics, Speech and Signal Processing*, Rhodes, Greece, June 4 - 9, 2023.
- “Unveiling the Importance of NOMA for Reducing AoI,” (with Zhiguo Ding and Robert Schober). *Proceedings of the 2023 IEEE International Conference on Communications*, Rome, Italy, May 28 - June 1, 2023.
- “Federated Edge Learning via Integrated Sensing, Computation, and Communication,” (with Peixi Liu, Guangxu Zhu, Shuai Wang, Miaowen Wen, Wu Luo and Shuguang Cui). *Proceedings of the 2023 IEEE International Conference on Communications*, Rome, Italy, May 28 - June 1, 2023.
- “Joint Transmit Precoding and Rate Allocation in Rate-Splitting Multiple Access-Based Wireless Backhaul HetNets,” (with Guangyuan Zheng, Miaowen Wen, Yingyang Chen and Yik-Chung Wu). *Proceedings of the 2023 IEEE International Conference on Communications*, Rome, Italy, May 28 - June 1, 2023.
- “FLORAS: Differentially Private Wireless Federated Learning Using Orthogonal Sequences,” (with Xizixiang Wei, Tianhao Wang, Ruiquan Huang, Cong Shen and Jing Yang). *Proceedings of the 2023 IEEE International Conference on Communications*, Rome, Italy, May 28 - June 1, 2023.
- “Reconfigurable Intelligent Surface Aided Full Duplex Networking Systems,” (Yuncong Li, Yingyang Chen, Miaowen Wen, Duoying Zhang, Bingli Jiao, Zhiguo Ding and Theodoros A. Tsiftsis). *Proceedings of the 2023 IEEE International Conference on Communications*, Rome, Italy, May 28 - June 1, 2023.
- “On the Capacity Region of Reconfigurable Intelligent Surface Assisted Symbiotic Radios,” (with Qianqian Zhang, Ying-Chang Liang and Wei Zhang). *Proceedings of the 2023 IEEE International Conference on Communications*, Rome, Italy, May 28 - June 1, 2023.
- “Adversarial Learning for Implicit Semantic-Aware Communications,” (with Zhimin Lu, Yong Xiao, Zijian Sun, Yingyu Li, Guangming Shi and Walid Saad). *Proceedings of the 2023 IEEE International Conference on Communications*, Rome, Italy, May 28 - June 1, 2023.
- “Fast-Adapting Environment-Agnostic Device-Free Indoor Localization via Federated Meta-Learning,” (with Bing-Jia Chen and Ronald Chang). *Proceedings of the 2023 IEEE International Conference on Communications*, Rome, Italy, May 28 - June 1, 2023.
- “Alternating Differentiation for Optimization Layers,” (with Tuan Huang, Jingya Wang, Dacheng Tao and Ye Shi). *Proceedings of the Eleventh International Conference on Learning Representations*, Kigali, Rwanda, May 1 - 5, 2023.
- “Impact of Channel Models on Performance Characterization of RIS-Assisted Wireless Systems,” (with Vahid Jamali, Walid Ghanem and Robert Schober). *Proceedings of the 17th European Conference on Antennas and Propagation*, Florence, Italy, March 26 - 31, 2023.

- “The ϵ -Effective Capacity for Statistical Delay and Error-Rate Bounded QoS Provisioning Over 6G CF M-MIMO Wireless Networks Using HARQ-IR,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 57th Annual Conference on Information Science and Systems*, The Johns Hopkins University, Baltimore, MD, March 22 - 24, 2023.
- “Heterogeneous Statistical QoS Provisioning for Scalable Software-Defined 6G Mobile Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 57th Annual Conference on Information Science and Systems*, The Johns Hopkins University, Baltimore, MD, March 22 - 24, 2023.
- “Massive-MIMO Based RSMA Under Nakagami- m Channel Over 6G mURLLC Wireless Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 57th Annual Conference on Information Science and Systems*, The Johns Hopkins University, Baltimore, MD, March 22 - 24, 2023.
- “Differentially Private Community Detection over Stochastic Block Models with Graph Sketching,” (with Mohamed Seif and Andrea J. Goldsmith). *Proceedings of the 57th Annual Conference on Information Science and Systems*, The Johns Hopkins University, Baltimore, MD, March 22 - 24, 2023.
- *“Beam-based Resource Allocation in THz-NOMA Networks,” (with Zhiguo Ding). *Proceedings of the International ITG 26th Workshop on Smart Antennas and 13th Conference on Systems, Communications, and Coding*, Braunschweig, Germany, February 27 - March 3, 2023.
- “Gaussian Primitive Diamond Channel: Correlated Noise and Applications,” (with Asif Katz, Michael Peleg and Shlomo Shamai). *Proceedings of the 2023 Information Theory and Applications Workshop*, San Diego, CA, February 12 - 17, 2023
- “A Separation Principle in the Design of Distributed Control for LTI Systems,” (with Anthony J. Savas, Shinkyu Park and Naomi E. Leonard). *Proceedings of the 61st IEEE Conference on Decision and Control*, Cancún, Mexico, December 6 - 9, 2022.
- “Sensor Deployment and Link Analysis in Satellite IoT Systems for Wildfire Detection,” (with How-Hang Liu, Ronald Y. Chang, Yi-Ying Chen and I-Kang Fu). *Proceedings of the 2022 IEEE Global Communications Conference*, Rio de Janeiro, Brazil, December 4 - 8, 2022.
- “Performance Optimization for Intelligent Reflecting Surface Assisted Multicast MIMO Networks,” (with Songling Zhang, Zhaohui Yang, Mingzhe Chen, Danpu Liu and Kai-Kit Wong). *Proceedings of the 2022 IEEE Global Communications Conference*, Rio de Janeiro, Brazil, December 4 - 8, 2022.
- “MIMO Detection under Hardware Impairments via Learning from Noisy Labels,” (with Jinman Kwon and Yo-Seb Jeon). *Proceedings of the 2022 IEEE Global Communications Conference*, Rio de Janeiro, Brazil, December 4 - 8, 2022.
- “Active RISs: Signal Modeling, Asymptotic Analysis, and Beamforming Design,” (with Zijian Zhang, Linglong Dai, Xibi Chen, Changhao Liu, Fan Yang and Robert Schober). *Proceedings of the 2022 IEEE Global Communications Conference*, Rio de Janeiro, Brazil, December 4 - 8, 2022.
- “Joint Coding of URLLC and eMBB in Wyners Soft-Handoff Network,” (with Homa Nikbakht, Michèle Wigger, Malcolm Egan, Shlomo Shamai and Jean-Marie Gorce). *Proceedings of the 2022 IEEE Global Communications Conference*, Rio de Janeiro, Brazil, December 4 - 8, 2022.
- “Hard Delay Constrained Communications over Parallel Fading Channels,” (with Changkun Li and Wei Chen). *Proceedings of the 2022 IEEE Global Communications Conference*, Rio de Janeiro, Brazil, December 4 - 8, 2022.
- “TSI-Aided Real-Time Monitoring of Brownian Motions: A Rate-Latency-Distortion Perspective,” (with Siyuan Yu and Wei Chen). *Proceedings of the 2022 IEEE Global Communications Conference*, Rio de Janeiro, Brazil, December 4 - 8, 2022.
- “Time Dimension Dances with Simplicial Complexes: Zigzag Filtration Curve Based Supra-Hodge Convolution Networks for Time-series Forecasting,” (with Yuzhou Chen and Yulia Gel). *Advances in Neural Information Processing Systems* (Proceedings of the Thirty-sixth Conference on Neural Information Processing Systems), New Orleans, November 26 - December 4, 2022.
- “Secure and Private Source Coding with Private Key and Decoder Side Information,” (with Onur Günlü, Rafael F. Schaefer and Holger Boche). *Proceedings of the 2022 IEEE Information Theory Workshop*, Mumbai, India, November 6 - 9, 2022.

- *“Information-Energy Trade-offs with EH Non-linearities in the Finite Block-Length Regime with Finite Constellations,” (with Sadaf ul Zuhra, Samir M. Perlaza and Mikael Skoglund). *Proceedings of the 2022 IEEE Information Theory Workshop*, Mumbai, India, November 6 - 9, 2022.
- “Consistent Estimation of Conditional Cumulants in the Empirical Bayes Framework,” (with Tang Liu, Alex Dytso and Shlomo Shamai). *Proceedings of the 56th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 30 - November 2, 2022.
- “Quantum Error Correction: A Brief Introduction and Some Recent Results.” Presented at the *Baylor-Casper-Princeton-TAMU Summer School on Quantum Physics and Biophysics*, Casper, WY, July 24 - 30, 2022.
- “The Role of Masks in Mitigating Viral Spread on Networks,” (with Yurun Tian, Anirudh Sridhar, Chai Wah Wu, Simon Levin and Osman Yağan). *Proceedings of Network Science 2022*, Shanghai, July 25 - 29, 2022.
- “A Vision of the 6G from the Perspective of Low-Complexity Hardware Micro/Nano Components,” (with Jacopo Iannacci). *Proceedings of the 2022 International Symposium on Networks, Computers and Communications*, Shenzhen, China, July 19 - 22, 2022.
- “Learning Mixtures of Linear Dynamical Systems,” (with Yanxi Chen). *Proceedings of the 39th International Conference on Machine Learning*, Baltimore, MD, July 17 - 23, 2022. [Outstanding Paper Award]
- “Joint Beamforming and Trajectory Optimizations for Statistical Delay and Error-Rate Bounded QoS Provisioning Over MIMO-UAV/IRS-Based 6G Mobile Edge Computing Networks Using FBC,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 42nd IEEE International Conference on Distributed Computing Systems*, Bologna, Italy, July 10 - 13, 2022.
- “Improved Information Theoretic Generalization Bounds for Distributed and Federated Learning,” (with Leighton P. Barnes and Alex Dytso). *Proceedings of the 2022 IEEE International Symposium on Information Theory*, Espoo, Finland, June 26 - July 1, 2022.
- “Achievable Information-Energy Capacity Region in the Finite Block-Length Regime with Finite Constellations,” (with Sadaf ul Zuhra, Samir M. Perlaza and Eitan Altman). *Proceedings of the 2022 IEEE International Symposium on Information Theory*, Espoo, Finland, June 26 - July 1, 2022.
- “Average Coverage Probability for Base-Station-To-UAV Communications Over 6G Multiple Access Wireless Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 2022 IEEE International Symposium on Information Theory*, Espoo, Finland, June 26 - July 1, 2022.
- “Capacity of Finite State Channels with Feedback: Algorithmic and Optimization Theoretic Properties,” (with Andrea Grigorescu, Holger Boche and Rafael F. Schaefer). *Proceedings of the 2022 IEEE International Symposium on Information Theory*, Espoo, Finland, June 26 - July 1, 2022.
- “The Statistical Delay and Error-Rate Bounded QoS Control for URLLC in the Non-Asymptotic Regime,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 2022 IEEE International Symposium on Information Theory*, Espoo, Finland, June 26 - July 1, 2022.
- “Capacity-Achieving Input Distributions: Algorithmic Computability and Approximability,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the 2022 IEEE International Symposium on Information Theory*, Espoo, Finland, June 26 - July 1, 2022.
- “Joint Beamforming and Trajectory Optimizations for Statistical Delay and Error-Rate Bounded QoS in UAV/IRS-Based 6G Wireless Networks Using FBC,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 2022 IEEE International Symposium on Information Theory*, Espoo, Finland, June 26 - July 1, 2022.
- “Neural Network Models and Transfer Learning for Impedance Modeling of Grid-Tied Inverters,” (with Yufei Li, Yicheng Liao, Xiongfei Wang, Lars Nordström, Prateek Mittal and Minjie Chen). *Proceedings of the 2022 IEEE 13th International Symposium on Power Electronics for Distributed Generation Systems*, Kiel, Germany, June 26 - 29, 2022.
- *“Adversarial Deep-unfolding Networks (ADNs) for Symbol Detection in Communication Systems,” (with Hung T. Nguyen, Steven Bottone and Isidoros Doxas). Presented at the *Workshop on AI/ML Digital Signal Processing for Wireless Channels*, held in conjunction with the *International Microwave Symposium*, Denver, Colorado, June 19 - 24, 2022.

- *“How Should IRSs Scale to Harden Multi-Antenna Channels?” (with Ali Bereyhi, Saba Asaad, Chongjun Ouyang, Ralf R. Müller and Rafael F. Schaefer). *Proceedings of the 12th IEEE Sensor Array and Multichannel Signal Processing Workshop*, Trondheim, Norway, June 20 - 23, 2022.
- *“Near-Field Hierarchical Beam Management for RIS-Enabled Millimeter Wave Multi-Antenna Systems,” (with George C. Alexandropoulos, Vahid Jamali and Robert Schober). *Proceedings of the 12th IEEE Sensor Array and Multichannel Signal Processing Workshop*, Trondheim, Norway, June 20 - 23, 2022.
- “Cyclic-Prefixed Single-Carrier Transmission with Reconfigurable Intelligent Surfaces,” (with Qiang Li, Miaowen Wen, Ertugrul Basar, George C. Alexandropoulos and Kyeong Jin Kim). *Proceedings of the EUCNC 6G Summit*, Grenoble, France, June 7 - 10, 2022.
- “Performance Optimization for Wireless Semantic Communications over Energy Harvesting Networks,” (with Mingzhe Chen and Yining Wang). *Proceedings of the 2022 IEEE International Conference on Acoustics, Speech and Signal Processing*, Singapore, May 22 - 27, 2022.
- “Federated Stochastic Gradient Descent Begets Self-Inducted Momentum,” (with Howard H. Yang, Zuozhu Liu, Yaru Fu and Tony Q. S. Quek). *Proceedings of the 2022 IEEE International Conference on Acoustics, Speech and Signal Processing*, Singapore, May 22 - 27, 2022.
- “Competitive Multi-agent Reinforcement Learning with Self-Supervised Representation,” (with Di Jia Su, Jason D. Lee and John M. Mulvey). *Proceedings of the 2022 IEEE International Conference on Acoustics, Speech and Signal Processing*, Singapore, May 22 - 27, 2022.
- *“Distributed Machine Learning for Wireless Semantic Communication.” Presented at the *Special Workshop on 6G: Current Research Trends and Open Challenges*, held in conjunction with the IEEE International Conference on Communications, Seoul, South Korea, May 16 - 20, 2022.
- “Simultaneously Transmitting and Reflecting (STAR)-RISs: A Coupled Phase-Shift Model,” (with Yuanwei Liu, Xidong Mu and Robert Schober). *Proceedings of the IEEE International Conference on Communications*, Seoul, South Korea, May 16 - 20, 2022. [SPCC Best Paper Award]
- “Random Orthogonalization for Federated Learning in Massive MIMO Systems,” (with Xizixiang Wei, Cong Shen and Jing Yang). *Proceedings of the IEEE International Conference on Communications*, Seoul, South Korea, May 16 - 20, 2022.
- “Exploiting Sparse Millimeter Wave Hotspots in Two-Tier Heterogeneous Networks: A Mobility-Enabled Pushing Scheme,” (with Zhanyuan Xie and Wei Chen). *Proceedings of the IEEE International Conference on Communications*, Seoul, South Korea, May 16 - 20, 2022.
- “Ultra-Low Latency Wireless Communications for Deterministic Networking: A Cross-Layer Approach,” (with Yalei Wang and Wei Chen). *Proceedings of the IEEE International Conference on Communications*, Seoul, South Korea, May 16 - 20, 2022.
- “Trustworthiness Verification and Integrity Testing for Wireless Communication Systems,” (with Holger Boche, Rafael F. Schaefer and Gerhard P. Fettweis). *Proceedings of the IEEE International Conference on Communications*, Seoul, South Korea, May 16 - 20, 2022.
- “Reasoning on the Air: An Implicit Semantic Communication Architecture,” (with Yan Li, Yong Xiao, Yingyu Li and Guangming Shi). *Proceedings of the IEEE Fourth International Workshop on Data Driven Intelligence for Networks and Systems*, in conjunction with the IEEE International Conference on Communications, Seoul South Korea, May 16 - 20, 2022.
- “Massive-MIMO Based Statistical QoS Provisioning for mURLLC Over 6G UAV Mobile Wireless Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the IEEE Wireless Communications and Networking Conference*, Austin, TX, April 10 - 13, 2022.
- “Multiple-Access Based UAV Communications and Trajectory Tracking Over 6G Mobile Wireless Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the IEEE Wireless Communications and Networking Conference*, Austin, TX, April 10 - 13, 2022..
- “A Dimensionality Reduction Method for Finding Least-favorable Priors with a Focus on Bregman Divergence,” (with Alex Dytso, Mario Goldenbaum and Shlomo Shamai). *Proceedings of the 25th International Conference on Artificial Intelligence and Statistics*, Valencia, Spain, March 28 - 30, 2022.

- “An f -Divergence-Ratio Bound on Stopping Times of Sequential Decision Processes,” (with Michael Fauß). *Proceedings of the 56th Annual Conference on Information Sciences and Systems*, Princeton, NJ, March 9 - 11, 2022.
- “Statistical Delay and Error-Rate Bounded QoS Control for mURLLC Over 6G Multimedia Mobile Wireless Networks in the Non-Asymptotic Regime,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 56th Annual Conference on Information Sciences and Systems*, Princeton, NJ, March 9 - 11, 2022.
- “Massive-MIMO Channel Capacity Modeling for mURLLC Over 6G UAV Mobile Wireless Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 56th Annual Conference on Information Sciences and Systems*, Princeton, NJ, March 9 - 11, 2022.
- “Convergence Time Minimization for Federated Reinforcement Learning over Wireless Networks,” (with Sihua Wang, Mingzhe Chen and Changchuan Yin). *Proceedings of the 56th Annual Conference on Information Sciences and Systems*, Princeton, NJ, March 9 - 11, 2022.
- “Identifying the Superspreader in Proactive Backward Contact Tracing by Deep Learning,” (with Siya Chen, Duo Yu and Chee Wei Tan). *Proceedings of the 56th Annual Conference on Information Sciences and Systems*, Princeton, NJ, March 9 - 11, 2022.
- “BScNets: Block Simplicial Complex Neural Networks, (with Yuzhou Chen and Yulia Gel). *Proceedings of the Thirty-Sixth AAAI Conference on Artificial Intelligence*, Vancouver, BC, February 22 - March 1, 2022.
- “Topological Clustering of Multilayer Networks,” (with Asim Dey, Monisha Yuvaraj, Vyacheslav Lyubchich and Yulia Gel). Presented at the *2021 American Geophysical Union Fall Meeting*, New Orleans, LA, December 13 - 17, 2021.
- “Joint Active and Passive Secure Precoding in IRS-Aided MIMO Systems,” (with Saba Asaad, Yifei Wu, Ali Bereyhi, Ralf R. Müller and Rafael F. Schaefer). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.
- “User Scheduling in Federated Learning over Energy Harvesting Wireless Networks,” (with Rami Hamdi, Mingzhe Chen, Ahmed Ben Said and Marwa Qaraqe). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.
- “Exploiting Millimeter Wave Hotspots in Two-Tier Heterogeneous Networks with Mobility-Enabled Pushing,” (with Zhanyuan Xie and Wei Chen). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.
- “Achieving Extremely Low-Latency: Joint Finite Blocklength Coding over Multiple Users in Downlinks,” (Xiaoyu Zhao and Wei Chen). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.
- “A Joint Communication and Federated Learning Framework for Internet-of-Things Networks,” (with Guangyu Jia, Zhaohui Yang, Mingzhe Chen, Hak-Keung Lam, Kai-Kit Wong and Shuguang Cui). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.
- “Asymptotic Analysis of the Reliability-Latency Tradeoff for URLLC in the High SNR Regime,” (with Yalei Wang and Wei Chen). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.
- “Timing Side Information Aided Real-Time Monitoring of Discrete-Event Systems,” (with Siyuan Yu and Wei Chen). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.
- “Primal Dual PPO Learning Resource Allocation in Indoor IRS-Aided Networks,” (with Haijun Zhang, Xiangnan Liu and Keping Long). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021. [Best Paper Award]
- “Performance Optimization for Semantic Communications: An Attention-based Learning Approach,” (with Yining Wang, Mingzhe Chen, Walid Saad, Tao Luo and Shuguang Cui). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.
- “Adversarial Neural Networks for Error Correcting Codes,” (with Hung T. Nguyen, Steven Bottone, Kwang Taik Kim and Mung Chiang). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.

- “Mutualistic Mechanism in Symbiotic Radio,” (with Qianqian Zhang, Ying-Chang Liang and Hong-Chuan Yang). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021. [Best Paper Award]
- “Federated Distributionally Robust Optimization for Phase Configuration of RISs,” (with Chaouki Ben Issaid, Sumudu Samarakoon, and Mehdi Bennis). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.
- “Physical Layer Security Optimization for MIMO Enabled Visible Light Communication Networks,” (with Zheng Xu, Ming Chen, Mingzhe Chen, Zhaohui Yang and Yihan Cang). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.
- “Statistical Delay and Error-Rate Bounded QoS for SWIPT in CF M-MIMO 6G Wireless Networks Using FBC,” (with Xi Zhang and Jingqing Wang). *Proceedings of the IEEE Global Communications Conference*, Madrid, Spain, December 7 - 11, 2021.
- “Quality of Service Guarantees for Physical Unclonable Functions,” (with Onur Günlü and Rafael F. Schaefer). *Proceedings of the 13th IEEE International Workshop on Information Forensics and Security*, Montpellier, France, December 7 - 10, 2021.
- *“Weighted Sum-Rate Maximization for Rate-splitting Multiple Access with Imperfect Channel Knowledge,” (with Byungju Lee and Wonjae Shin). *Proceedings of the 12th International Conference on ICT Convergence*, Jeju Island, Korea, October 20 - 22, 2021.
- *“Learning at the Wireless Edge.” Presented at the *MIT Workshop on Networks of ML, for ML, and by ML*, Cambridge, MA, September 22 - 24, 2021.
- *“Federated Learning with Downlink Device Selection,” (with Mohammad Amiri and Sanjeev Kulkarni). *Proceedings of the 22nd IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Lucca, Italy, September 27 - 30, 2021.
- *“Minimization of Age of Information for Monitoring Realistic Physical Processes in Unmanned Aerial Vehicle Networks,” (with Xuanlin Liu, Sihua Wang, Mingzhe Chen, Changchuan Yin and Shuguang Cui). *Proceedings of the 22nd IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Lucca, Italy, September 27 - 30, 2021.
- “An Inequality for Bayesian Bregman Risks with Applications in Directional Estimation,” (with Michael Fauß and Alex Dytso). *Proceedings of the 2021 IEEE International Conference on Multisensor Fusion and Integration*, Karlsruhe, Germany, September 23 - 25, 2021.
- *“Learning at the Wireless Edge.” Presented at the *Workshop on Networks of Machine Learning, for Machine Learning, and by Machine Learning*, C3.ai Digital Transformation Institute, September 22 - 24, 2021.
- *“Context-Aware Security for 6G Wireless: The Role of Physical Layer Security.” Presented at the *17th International Symposium on Wireless Communication Systems*, Berlin, Germany, September 6 - 9, 2021.
- “A Rate-Distortion Framework for Characterizing Semantic Information,” (with Jiakun Liu and Wenyi Zhang). *Proceedings of the 2021 IEEE International Symposium on Information Theory*, Melbourne, Australia, July 12 - 20, 2021.
- “Detectability of Denial-of-Service Attacks on Arbitrarily Varying Classical-Quantum Channels,” (with Holger Boche, Minglai Cai and Rafael F. Schaefer). *Proceedings of the 2021 IEEE International Symposium on Information Theory*, Melbourne, Australia, July 12 - 20, 2021.
- “AoI-Driven Statistical Delay and Error-Rate Bounded QoS Provisioning for URLLC Over Wireless Networks in the Finite Blocklength Regime,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 2021 IEEE International Symposium on Information Theory*, Melbourne, Australia, July 12 - 20, 2021.
- “Permutation Recovery by Linear Decoding: Optimality and Asymptotics,” (with Minoh Jeong, Alex Dytso and Martina Cardone). Presented at the *2021 North American School of Information Theory*, June 21 - 25, 2021.
- “Turing Meets Shannon: Algorithmic Constructability of Capacity-Achieving Codes for DMCs,” (with Holger Boche and Rafael Schaefer). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.

- “A Cluster-Based Transmit Diversity Scheme for Asynchronous Joint Transmissions in Private Networks,” (with Kyeong Jin Kim, Jianlin Guo, Philip V. Orlik and Yukimasa Nagai). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- “Distributionally Robust Optimization for Peak Age of Information Minimization in E-Health IoT,” (with Zhuang Ling, Fengye Hu, Hongliang Zhang and Zhu Han). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- “Performance Optimization of Distributed Primal-Dual Algorithm over Wireless Networks,” (with Zhaohui Yang, Mingzhe Chen, Kai-Kit Wong, Walid Saad and Shuguang Cui). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- “Belief and Opinion Evolution in Social Networks: A High-Dimensional Mean Field Game Approach,” (with Hao Gao, Alex Lin, Reginald A. Banez, Wuchen Li, Zhu Han and Stanley Osher). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- “Algorithmic Detection of Adversarial Attacks on Message Transmission and ACK/NACK Feedback,” (with Holger Boche and Rafael Schaefer). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- “Statistical CSI Based Hybrid mmWave MIMO-NOMA with Max-Min Fairness,” (with Jinle Zhu, Qiang Li and Hongyang Chen). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- “Task Selection and Route Planning for Multi-Operator Mobile Crowd Sensing Using Multi-Population Mean-Field Games,” (with Yuhan Kang, Siting Liu, Hongliang Zhang, Zhu Han and Stanley Osher). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- “Joint Optimization/Tradeoff of Peak-AoI/Delay-Bound Violating Probabilities Over URLLC/FBC Networks,” (with Xi Zhang and Jingqing Wang). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- “Spatio-temporal Modeling for Large-scale Vehicular Networks Using Graph Convolutional Networks,” (with Juntong Liu, Yong Xiao, Yingyu Li, Guangming Shi and Walid Saad). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- “Meta-Reinforcement Learning for Immersive Virtual Reality over THz/VLC Wireless Networks,” (with Yining Wang, Mingzhe Chen, Zhaohui Yang, Walid Saad, Tao Luo and Shuguang Cui). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- “Utility Optimization of Blockchain Empowered Edge Computing with Deep Reinforcement Learning,” (with Dinh C. Nguyen, Ming Ding, Pubudu N. Pathirana, Aruna Seneviratne and Jun Li). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- “Joint Resource Management and Model Compression for Wireless Federated Learning,” (with Mingzhe Chen, Nir Shlezinger, Yonina C. Eldar and Shuguang Cui). *Proceedings of the IEEE International Conference on Communications*, Montreal, Canada, June 14 - 18, 2021.
- *“Leveraging a Multiple-strain Model with Mutations in Analyzing the Spread of COVID-19,” (invited, with Anirudh Sridhar, Osman Yağan, Rashad Eleetreby, Simon A. Levin and Joshua B. Plotkin). *Proceedings of the 2021 IEEE International Conference on Acoustics, Speech and Signal Processing*, Toronto, ON, June 6 - 11, 2021.
- “Bayes-Optimal Methods for Finding the Source of a Cascade,” (with Anirudh Sridhar). *Proceedings of the 2021 IEEE International Conference on Acoustics, Speech and Signal Processing*, Toronto, ON, June 6 - 11, 2021.
- *“Spatial Equalization before Reception: Reconfigurable Intelligent Surfaces for Multi-path Mitigation,” (with Hongliang Zhang, Lingyang Song and Zhu Han). *Proceedings of the 2021 IEEE International Conference on Acoustics, Speech and Signal Processing*, Toronto, ON, June 6 - 11, 2021.
- “Communication Over Block Fading Channels - An Algorithmic Perspective on Optimal Transmission Schemes, (with Holger Boche and Rafael F. Schaefer). *Proceedings of the 2021 IEEE International Conference on Acoustics, Speech and Signal Processing*, Toronto, ON, June 6 - 11, 2021.

- “Real Number Signal Processing Can Detect Denial-of-Service Attacks,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the 2021 IEEE International Conference on Acoustics, Speech and Signal Processing*, Toronto, ON, June 6 - 11, 2021.
- “Energy Minimization for Federated Learning with IRS-Assisted Over-the-Air Computation,” (with Yuntao Hu, Ming Chen, Mingzhe Chen, Zhaohui Yang, Mohammad Shikh-Bahaei and Shuguang Cui). *Proceedings of the 2021 IEEE International Conference on Acoustics, Speech and Signal Processing*, Toronto, ON, June 6 - 11, 2021.
- “Neural Layered Min-Sum Decoding for Protograph LDPC Codes,” (with Dexin Zhang, Jincheng Dai, Kailin Tan, Kai Niu, Mingzhe Chen and Shuguang Cui). *Proceedings of the 2021 IEEE International Conference on Acoustics, Speech and Signal Processing*, Toronto, ON, June 6 - 11, 2021.
- “Analysis of the Impact of Mask-wearing in Viral Spread: Implications for COVID-19,” (with Yurun Tian, Anirudh Sridhar and Osman Yağan). *Proceedings of the 2021 American Control Conference*, New Orleans, LA, May 26 - 28, 2021.
- “Optimal Resource Allocation for Statistical QoS Provisioning in Supporting mURLLC Over FBC-Driven 6G Terahertz Wireless Nano-Networks,” (with Xi Zhang and Jingqing Wang). *Proceedings of the IEEE INFOCOM 2021: IEEE International Conference on Computer Communications 2021*, Vancouver, BC, May 10 - 13, 2021.
- “Statistical Delay and Error-Rate Bounded QoS Provisioning for 6G mURLLC Over AoI-Driven and UAV-Enabled Wireless Networks,” (with Xi Zhang and Jingqing Wang). *Proceedings of the IEEE INFOCOM 2021: IEEE International Conference on Computer Communications 2021*, Vancouver, BC, May 10 - 13, 2021.
- “On the Distribution of the Conditional Mean Estimator in Gaussian Noise,” (with Alex Dytso and Shlomo Shamai). *Proceedings of the 2020 IEEE Information Theory Workshop*, Riva del Garda, Italy, April 11 - 15, 2021.
- “Optimization of User Selection and Bandwidth Allocation for Federated Learning in Hybrid VLC/RF Systems,” (with Chuanhong Liu, Caili Guo, Yang Yang, Mingzhe Chen and Shuguang Cui). *Proceedings of the IEEE Wireless Communications and Networking Conference*, Nanjing, China, March 29 - April 1, 2021. [Best Paper Award]
- “Sum Spectral Efficiency Optimization for Rate Splitting in Downlink MU-MISO,” (with Wonjae Shin, Jeonghun Park, Jinseok Choi and Namyoon Lee). *Proceedings of the Workshop on Rate Splitting (Multiple-Access) for Beyond 5G* held in conjunction with the *IEEE Wireless Communications and Networking Conference*, Nanjing, China, March 29 - April 1, 2021.
- “Age-of-Information Supporting mURLLC Over 6G Multimedia Wireless Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 55th Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 24 - 26, 2021.
- “Statistical Bounded Age-of-Information for mURLLC Over 6G Multimedia Wireless Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 55th Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 24 - 26, 2021.
- “AoI-Driven Statistical Delay and Error-Rate Bounded QoS Provisioning for URLLC Over Wireless Networks in the Finite Blocklength Regime,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 55th Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 24 - 26, 2021.
- “Statistical Delay and Error-Rate Bounded QoS Provisioning for SWIPT Over CF-mMIMO Based IoT Networks Using FBC,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 55th Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 24 - 26, 2021.
- “DeHiB: Deep Hidden Backdoor Attack on Semi-Supervised Learning via Adversarial Perturbation,” (with Zhicong Yan, Gaolei Li, Yuan Tian, Jun Wu, Shenghong Li and Mingzhe Chen). *Proceedings of the 35th AAAI Conference on Artificial Intelligence*, February 2 - 9, 2021.
- “Tackling the Objective Inconsistency Problem in Heterogeneous Federated Optimization,” (with Jianyu Wang, Qinghua Liu, Hao Liang and Gauri Joshi). *Advances in Neural Information Processing Systems* (Proceedings of the Thirty-fourth Conference on Neural Information Processing Systems), Vancouver, BC, December 5 - 12, 2020.

- “Convergence of Meta-Learning with Task-Specific Adaptation over Partial Parameters,” (with Kaiyi Ji, Jason Lee and Yingbin Liang). *Advances in Neural Information Processing Systems* (Proceedings of the Thirty-fourth Conference on Neural Information Processing Systems), Vancouver, BC, December 5 - 12, 2020.
- “Blockchain Assisted Decentralized Federated Learning (BLADE-FL) with Lazy Clients,” (with Jun Li, Yumeng Shao, Ming Ding, Chuan Ma, Kang Wei and Zhu Han). *Proceedings of the NeurIPS Workshop on Scalability, Privacy, and Security in Federated Learning*, December 5 - 12, 2020.
- “Meta-Reinforcement Learning for Trajectory Design in Wireless UAV Networks,” (with Ye Hu, Mingzhe Chen, Walid Saad and Shuguang Cui). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020. [Best Paper Award]
- “Interference Modeling and Mutual Information Maximization Over 6G THz Wireless Ad-Hoc Nano-Networks,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020. [Best Paper Award]
- “Age of Information in Random Access Networks: A Spatiotemporal Study,” (with Howard H. Yang, Ahmed Arafa and Tony Q. S. Quek). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “Resource Allocation for Wireless Communications with Distributed Reconfigurable Intelligent Surfaces,” (with Zhaohui Yang, Mingzhe Chen, Walid Saad, Wei Xu, Mohammad Shikh-Bahaei and Shuguang Cui). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “Flexible LED Index Modulation for MIMO Optical Wireless Communications,” (with Anil Yesilkaya, Ardimas Andi Purwita, Erdal Panayirci and Harald Haas). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “Trajectory Optimization for UAV-to-Device Underlaid Cellular Networks by Mean-Field-Type Control,” (with Hongliang Zhang and Zhu Han). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “Deep Reinforcement Learning for IoT Networks: Age of Information and Energy Cost Tradeoff,” (with Xiongwei Wu, Xiuhua Li, Jun Li and P. C. Ching). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “User Preference Aware Lossy Data Compression for Edge Caching,” (with Yawei Lu and Wei Chen). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “AoI Minimization for UAV-to-Device Underlay Communication by Multi-agent Deep Reinforcement Learning,” (with Fanyi Wu, Hongliang Zhang, Jianjun Wu, Lingyang Song and Zhu Han). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “Joint Resource Allocation Optimization Over EH Based 6G THz-Band Big-Data-Driven Nano-Networks,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “Age of Information Based Effective Capacity Over QoS-Driven Multimedia Mobile Wireless Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “Energy-efficient Velocity Control for Massive Numbers of Rotary-Wing UAVs: A Mean Field Game Approach,” (with Hao Gao, Wonjun Lee, Wuchen Li, Zhu Han and Stanley Osher). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “AoI Minimization for Grant-Free Massive Access with Short Packets Using Mean-Field Evolutionary Games,” (with Hongliang Zhang, Yuhang Kang and Zhu Han). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “Reconfigurable Intelligent Surface Assisted D2D Networks: Power and Discrete Phase Shift Design,” (with Yali Chen, Bo Ai, Hongliang Zhang, Yong Niu, Lingyang Song and Zhu Han) *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.

- “Reinforcement Learning for Minimizing Age of Information under Realistic Physical Dynamics,” (with Sihua Wang, Mingzhe Chen, Walid Saad, Changchuan Yin and Shuguang Cui). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “PLS for Wireless Interference Networks in the Short Blocklength Regime with Strong Wiretap Channels,” (with Zhichao Sheng, Hoang D. Tuan and Ali A. Nasir). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “Backhaul Reliability Analysis on Cluster-Based Transmit Diversity Schemes in Private Networks,” (with Kyeong Jin Kim, Hongwu Liu, Phee Lep Yeoh and Philip V. Orlik). *Proceedings of the 2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 - 11, 2020.
- “Analyzing Social Distancing and Seasonality of COVID-19 with Mean Field Evolutionary Dynamics,” (with Hao Gao, Wuchen Li and Zhu Han). *Proceedings of the Special Workshop on Communications and Networking Technologies for Responding to COVID-19*, held in conjunction with the *2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 -11, 2020.
- “Online Learning to Precode for FDD Massive MIMO Systems,” (with Daeun Kim and Namyoony Lee). *Proceedings of the Open Workshop on Machine Learning in Communications*, held in conjunction with the *2020 IEEE Global Communications Conference*, Taipei, Taiwan, December 7 -11, 2020.
- “A Prospect Theoretic Extension of a Non-Zero-Sum Stochastic Eavesdropping and Jamming Game.” (with Andrey Garnaev, Wade Trappe and Narayan B. Mandayam). *Proceedings of the IEEE International Workshop on Information Forensics and Security*, December 6 - 11, 2020.
- *“Coordinated Rate Splitting Multiple Access for Multi-Cell Downlink Networks,” (with Nohgyeom Ha, Wonjae Shin, Mojtaba Vaezi). *Proceedings of the 54th Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 1 - 4, 2020.
- *“Secure Communication in an IRS Assisted Massive MIMO Downlink,” (with Saba Asaad, Ali Bereyhi, Rafael F. Schaefer and Ralf R. Müller). *Proceedings of the 54th Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 1 - 4, 2020.
- “Physics-based Modeling of Large Intelligent Reflecting Surfaces for Scalable Optimization,” (with Marzieh Najafi, Vahid Jamali and Robert Schober). *Proceedings of the 54th Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 1 - 4, 2020.
- “MMSE Bounds Under Kullback-Leibler Divergence Constraints on the Joint Input-Output Distribution,” (with Michael Fauß and Alex Dytso). *Proceedings of the 54th Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 1 - 4, 2020.
- “Sequential Estimation of Network Cascades,” (with Anirudh Sridhar). *Proceedings of the 54th Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 1 - 4, 2020.
- “Optimizing Resource Efficiency for Federated Edge Intelligence in IoT Networks,” (Yong Xiao, Yingyu Li and Guangming Shi). *Proceedings of the 12th International Conference on Wireless Communications and Signal Processing*, Nanjing, China, October 21 - 23, 2020. [Best Paper Award]
- “Truthful Mobile Crowd Sensing with Interdependent Valuations,” (with Meng Zhang, Brian Swenson and Jianwei Huang). *Proceedings of ACM Mobihoc: International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing*, October 11 - 14, 2020.
- “A Power Control Problem for a Dual Communication-Radar System Facing a Jamming Threat,” (with Andrey Garnaev, Athina Petropulu and Wade Trappe). *Proceedings of the 2020 IEEE Radar Conference*, Florence, Italy, September 21 - 25, 2020.
- *“Evolutionary Adaptations and Spreading Processes in Complex Networks.” Presented at the *Workshop on Dynamics over Networks: Epidemics, Opinions and Information*, C3.ai Digital Transformation Institute, September 8 - 11, 2020.
- “Power Efficient Deployment of VLC-enabled UAVs,” (with Zhiyu Zhu, Yang Yang, Caili Guo, Mingzhe Chen and Shuguang Cui). *Proceedings of the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, London, UK, August 31 - September 3, 2020.
- “Energy-Efficient Spatially-Correlated Data Aggregation Using Unmanned Aerial Vehicles,” (with Ahmed A. Al-habob and Octavia A. Dobre). *Proceedings of the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, London, UK, August 31 - September 3, 2020.

- “Client-Level Privacy-Preserving Federated Deep Models Against Curious Servers” (with Kang Wei, Jun Li, Ming Ding and Chuan Ma). Presented at the *21st IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks*, Cork, Ireland, August 31 - September 3, 2020.
- *“Topological and Geometric Methods for Resilience Analysis of Power Grid Networks,” (with Asim Kumer Dey and Yulia R. Gel). Presented at the *2020 Joint Statistical Meetings*, Philadelphia, PA, August 1 - 6, 2020.
- “Delay Minimization for Federated Learning Over Wireless Communication Networks,” (with Zhaohui Yang, Mingzhe Chen, Walid Saad, Choong Seon Hong, Mohammad Shikh-Bahaei and Shuguang Cui). *Proceedings of the International Workshop on Federated Learning for User Privacy and Data Confidentiality*, in conjunction with the *International Conference on Machine Learning*, Vienna, Austria, July 17 - 18, 2020.
- “Uncertainty Quantification for Nonconvex Tensor Completion: Confidence Intervals, Heteroscedasticity and Optimality,” (with Changxiao Cai and Yuxin Chen). *Proceedings of the Thirty-seventh International Conference on Machine Learning (ICML)*, Vienna, Austria, July 12 - 18, 2020.
- “On the Algorithmic Computability of Achievability and Converse: Epsilon-Capacity of Compound Channels and Asymptotic Bounds of Error-Correcting Codes,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “Incremental ADMM with Privacy-Preservation for Decentralized Consensus Optimization,” (with Yu Ye, Hao Chen, Ming Xiao and Mikael Skoglund). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “Recovering Structure of Noisy Data through Hypothesis Testing,” (with Minoh Jeong, Alex Dytso and Martina Cardone). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “Biometric and Physical Identifiers with Correlated Noise for Controllable Private Authentication,” (with Onur Günlü and Rafael F. Schaefer). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “On Nonparametric Estimation of the Fisher Information,” (with Wei Cao, Alex Dytso, Michael Fauß and Gang Feng). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “A General Derivative Identity for the Conditional Mean Estimator in Gaussian Noise and Some Applications,” (with Alex Dytso and Shlomo Shamai). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “An Efficient Neural Network Design for Rate Maximization of Energy Harvesting Downlink Channels,” (with Heasung Kim, Taehyun Cho, Jungwoo Lee and Wonjae Shin). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “On MIMO Gaussian Wiretap Channels with Optimal Energy Harvesting,” (with Nima Tavangaran and Mojtaba Vaezi). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “Timely Estimation Using Coded Quantized Samples,” (with Ahmed Arafa, Karim Banawan and Karim G. Seddik). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “A Compression Perspective on Secrecy Measures,” (with Yanina Y. Shkel). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “Update Aware Device Scheduling for Federated Learning at the Wireless Edge,” (with Mohammad Amiri, Deniz Gündüz and Sanjeev Kulkarni). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “Sequential Hypothesis Criterion Based Optimal Caching Schemes in Wireless Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 2020 IEEE International Symposium on Information Theory*, Los Angeles, CA, June 21 - 26, 2020.
- “Partial Recovery of Erdős-Rényi Graph Alignment via k -Core Alignment,” (with Daniel Cullina, Negar Kiyavash and Prateek Mittal). *Proceedings of ACM SIGMETRICS 2020*, Boston, MA, June 8 - 12, 2020.

- “A dCDD-Based Transmit Diversity for NOMA Systems,” (with Kyeong Jin Kim, Hongwu Liu, Hongjiang Lei, Zhiguo Ding and Philip V. Orlik). *Proceedings of the IEEE International Conference on Communications*, Dublin, Ireland, June 7 - 11, 2020.
- “Data-Aided Channel Estimator for MIMO Systems Via Reinforcement Learning,” (with Yo-Seb Jeon, Jun Li and Nima Tavangaran). *Proceedings of the IEEE International Conference on Communications*, Dublin, Ireland, June 7 - 11, 2020.
- “Convergence Time Minimization of Federated Learning over Wireless Networks,” (with Mingzhe Chen, Walid Saad and Shuguang Cui). *Proceedings of the IEEE International Conference on Communications*, Dublin, Ireland, June 7 - 11, 2020.
- “Remote Short Block Length Process Monitoring: Trade-off Between Resolution and Data Freshness,” (with Stefan Roth, Ahmed Arafa and Aydin Sezgin). *Proceedings of the IEEE International Conference on Communications*, Dublin, Ireland, June 7 - 11, 2020.
- “Learning Centric Power Allocation for Edge Intelligence,” (with Shuai Wang, Rui Wang, Qi Hao and Yik-Chung Wu). *Proceedings of the IEEE International Conference on Communications*, Dublin, Ireland, June 7 - 11, 2020.
- “Sensing and Communication Trade-off Design for Age of Information Minimization in a Cellular Internet of UAVs,” (with Shuhang Zhang, Hongliang Zhang, Lingyang Song and Zhu Han). *Proceedings of the IEEE International Conference on Communications*, Dublin, Ireland, June 7 - 11, 2020.
- “Framing and Finite-Blocklength Coding for URLLC in Multi-user Downlinks,” (with Xiaoyu Zhao and Wei Chen). *Proceedings of the IEEE International Conference on Communications*, Dublin, Ireland, June 7 - 11, 2020.
- “Belief and Opinion Evolution in Social Networks Based on a Multi-Population Mean Field Game Approach,” (with Reginald A. Banez, Hao Gao, Lixin Li, Chungang Yang and Zhu Han). *Proceedings of the IEEE International Conference on Communications*, Dublin, Ireland, June 7 - 11, 2020.
- “Energy-Efficient Joint Power Control and Receiver Design for Uplink mmWave-NOMA,” (with Ming Zeng, Wanming Hao, Animesh Yadav, Nam-Phong Nguyen and Octavia A. Dobre). *Proceedings of the 6th IEEE International Workshop on NOMA for 5G and Beyond*, held in conjunction with the IEEE International Conference on Communications, Dublin, Ireland, June 7 - 11, 2020.
- “Sum-Throughput Maximization for NOMA-Based WPCN with Signal Alignment,” (with Dongyeong Song, Wonjae Shin and Jungwoo Lee). *Proceedings of the 6th IEEE International Workshop on NOMA for 5G and Beyond*, held in conjunction with the IEEE International Conference on Communications, Dublin, Ireland, June 7 - 11, 2020.
- *“Linear Precoder Design for Physical Layer Secure Communications with Reconfigurable Intelligent Surfaces,” (with Gayan Amarasuriya Aruma Baduge and Rafael F. Schaefer). *Proceedings of the 21st IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Atlanta, GA, May 26 - 29, 2020.
- *“Performance Optimization of Federated Learning over Mobile Wireless Networks,” (with Mingzhe Chen, Walid Saad and Shuguang Cui). *Proceedings of the 21st IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Atlanta, GA, May 26 - 29, 2020.
- “Information-Theoretic Bounds on the Generalization Error and Privacy Leakage in Federated Learning,” (with Semih Yagli and Alex Dytso). *Proceedings of the 21st IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Atlanta, GA, May 26 - 29, 2020.
- “A Class of Lower Bounds for Bayesian Risk with a Bregman Loss,” (with Alex Dytso and Michael Fauß). *Proceedings of the 21st IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Atlanta, GA, May 26 - 29, 2020.
- “Analyses of Age of Information Supporting URLLC Over Multimedia Wireless Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 21st IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Atlanta, GA, May 26 - 29, 2020.
- “Statistical QoS Provisioning Over Cell-Free M-MIMO-NOMA Based 5G+ Mobile Wireless Networks in the Non-Asymptotic Regime,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 21st IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Atlanta, GA, May 26 - 29, 2020.

- “Symbiotic Radio: A New Application of Large Intelligent Surface/Antennas (LISA),” (with Qianqian Zhang and Ying-Chang Liang). *Proceedings of the IEEE Wireless Communications and Networking Conference*, Seoul, South Korea, May 25 - 28, 2020.
- *“Learning at the Wireless Edge.” Presented at the *KTH Workshop on Fundamentals of Machine Learning over Networks*, Stockholm, Sweden, May 18 - 19, 2020, presented online.
- *“Age-Based Scheduling for Federated Learning in Mobile Edge Networks,” (with Howard H. Yang, Ahmed Arafa, Yaru Fu and Tony Q. S. Quek). *Proceedings of the 45th IEEE International Conference on Acoustics, Speech and Signal Processing*, Barcelona, Spain, May 4 - 8, 2020.
- *“Federated Learning with Quantization Constraints,” (with Nir Shlezinger, Mingzhe Chen, Yonina Eldar and Shuguang Cui). *Proceedings of the 45th IEEE International Conference on Acoustics, Speech and Signal Processing*, Barcelona, Spain, May 4 - 8, 2020.
- *“Hybrid Precoding for Secure Transmission in Reflect-Array-Assisted Massive MIMO Systems,” (with Saba Asaad and Rafael F. Schaefer). *Proceedings of the 45th IEEE International Conference on Acoustics, Speech and Signal Processing*, Barcelona, Spain, May 4 - 8, 2020.
- *“An Empirical Bayes Approach to Partially Labeled and Shuffled Data Sets,” (with Alex Dytso). *Proceedings of the 45th IEEE International Conference on Acoustics, Speech and Signal Processing*, Barcelona, Spain, May 4 - 8, 2020.
- *“On Distributed Stochastic Gradient Algorithms for Global Optimization,” (with Brian Swenson and Anirudh Sridhar). *Proceedings of the 45th IEEE International Conference on Acoustics, Speech and Signal Processing*, Barcelona, Spain, May 4 - 8, 2020.
- “A Switching Transmission Game with Latency as the Users Communication Utility,” (with Andrey Garnaeu, Wade Trappe and Athina Petropulu). *Proceedings of the 45th IEEE International Conference on Acoustics, Speech and Signal Processing*, Barcelona, Spain, May 4 - 8, 2020.
- “Bayesian Multiple Change-Point Detection with Limited Communication,” (with Topi Halme, Eyal Nitzan and Visa Koivunen). *Proceedings of the 45th IEEE International Conference on Acoustics, Speech and Signal Processing*, Barcelona, Spain, May 4 - 8, 2020.
- “On Polar Coding for Finite Blocklength Secret Key Generation over Wireless Channels,” (with Henri Hentil, Yanina Y. Shkel and Visa Koivunen) *Proceedings of the 45th IEEE International Conference on Acoustics, Speech and Signal Processing*, Barcelona, Spain, May 4 - 8, 2020.
- “Robust Transmission Over Channels with Channel Uncertainty: An Algorithmic Perspective,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the 45th IEEE International Conference on Acoustics, Speech and Signal Processing*, Barcelona, Spain, May 4 - 8, 2020.
- “Latency-Minimized Design of Secure Transmission in UAV-Aided Communications,” (with Xiongwei Wu, Qiang Li, Yawei Lu, Victor C. M. Leung and P. C. Ching). *Proceedings of the 45th IEEE International Conference on Acoustics, Speech and Signal Processing*, Barcelona, Spain, May 4 - 8, 2020.
- “Age of Information Minimization with Finite Horizon and Partial Updates,” (with David Ramirez and Elza Erkip). *Proceedings of the 45th IEEE International Conference on Acoustics, Speech and Signal Processing*, Barcelona, Spain, May 4 - 8, 2020.
- *“Learning at the Wireless Edge.” Presented at the *Wireless Telecommunications Symposium 2020*, Washington, DC, April 22 - 24, 2020, presented online.
- “Statistical Delay/Error-Rate Bounded QoS Provisioning Across Clustered mmWave-Channels Over Cell-Free Massive MIMO Based 5G Mobile Wireless Networks in the Finite Blocklength Regime,” (with Xi Zhang and Jingjing Wang). *Proceedings of the 54th Conference on Information Sciences and Systems*, Princeton, NJ, March 18 - 20, 2020.
- “On the ϵ -Capacity of Finite Compound Channels with Applications to the Strong Converse and Second Order Analysis,” (with Rafael Schaefer and Holger Boche). *Proceedings of the 54th Conference on Information Sciences and Systems*, Princeton, NJ, March 18 - 20, 2020.
- *“Deterministic Multiple Change-Point Detection with Limited Communication,” (with Eyal Nitzan, Topi Halme and Visa Koivunen). *Proceedings of the 54th Conference on Information Sciences and Systems*, Princeton, NJ, March 18 - 20, 2020.

- “Physical-Layer Security in Visible Light Communications,” (with Anil Yesilkaya, Tezcan Cogalan, Serhat Erkuçuk, Yalcin Sadi, Erdal Panayirci and Harald Haas). *Proceedings of the 6G Wireless Summit*, Levi, Finland, March 17 - 20, 2020.
- “Estimating Noisy Order Statistics,” (with Martina Cardone and Alex Dytso). Presented at the *2020 Information Theory and Applications Workshop*, Pacific Beach, CA, February 2 - 7, 2020.
- *“Distributed Global Optimization by Annealing,” (with Brian Swenson, Soumya Kar and José M. F. Moura). *Proceedings of the 2019 IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP)*, Guadeloupe, West Indies, December 15 - 18, 2019.
- “Nonconvex Low-Rank Tensor Completion from Noisy Data,” (with Changxiao Cai, Gen Li and Yuxin Chen). *Advances in Neural Information Processing Systems* (Proceedings of the Thirty-third Conference on Neural Information Processing Systems), Vancouver, BC, December 8 - 14, 2019.
- “Annealing for Distributed Global Optimization,” (with Brian Swenson, Soumya Kar and José M. F. Moura). *Proceedings of the 58th IEEE Conference on Decision and Control*, Nice, France, December 11 - 13, 2019.
- “On Timely Channel Coding with Hybrid ARQ,” (with Ahmed Arafa, Karim Banawan and Karim G. Seddik). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Securing Massive MIMO-NOMA Networks with ZF Beamforming and Artificial Noise,” (with Nam-Phong Nguyen, Ming Zeng and Octavia A. Dobre). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Intelligent User Association for Symbiotic Radio Networks Using Deep Reinforcement Learning,” (with Qianqian Zhang and Ying-Chang Liang). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Locally Adaptive Scheduling Policy for Optimizing Information Freshness in Wireless Networks,” (with Howard H. Yang, Ahmed Arafa and Tony Q. S. Quek). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Privacy Aware Recommendation: Reinforcement Learning Based User Profile Perturbation,” (with Yilin Xiao, Liang Xiao, Hailu Zhang and Shui Yu). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Robust Waterfilling for Approximately Gaussian Inputs,” (with Wei Cao, Alex Dytso, Michael Fauß and Gang Feng). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Performance Optimization of Federated Learning over Wireless Networks,” (with Mingzhe Chen, Zhaohui Yang, Walid Saad, Changchuan Yin and Shuguang Cui). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “NOMA-Based Statistical QoS Provisioning for 5G Mobile Wireless Networks With Finite Blocklength,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Optimal QoS-Driven Power Allocation for Energy Harvesting Wireless Ad-Hoc Networks Using FBC,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “mmWave-MIMO Based 5G Wireless Networks in the Finite Blocklength Regime,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Reinforcement Learning Based QoS-Provisioning Over Energy-Harvesting 5G Wireless Ad-Hoc Networks,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Distributed Asynchronous Cyclic Delay Diversity-Based Cooperative Systems with a Passive Eavesdropper,” (with Kyeong Jin Kim, Hongwu Liu, Miaowen Wen and Philip V. Orlik). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.

- “Reinforcement-Learning-Aided Detector for Time-Varying MIMO Systems with One-Bit ADCs,” (with Yo-Seb Jeon and Namyoon Lee). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Scaling Law Based D2D Wireless Ad-Hoc Networks in the Finite Blocklength Regime,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Neyman-Pearson Criterion Based Optimal Hierarchical Caching Over D2D Wireless Ad-Hoc Networks,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Mean Field Evolutionary Dynamics in Ultra Dense Mobile Edge Computing,” (with Hao Gao, Wuchen Li, Reginald A. Banez and Zhu Han). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Finite Blocklength Performance of Relay Networks Over Nakagami- m Channels,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Minimum-Energy and Error-Rate Over Nakagami- m Channels: A Finite-Blocklength Analysis,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the 2019 IEEE Global Communications Conference*, Waikoloa, HI, December 9 - 13, 2019.
- “Resource Allocation for Secure Communication Systems: Algorithmic Solvability,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the 2019 IEEE International Workshop on Information Forensics and Security*, Delft, The Netherlands, December 9 -12, 2019.
- “A Power Control Game with Uncertainty On the Type of the Jammer,” (with Andrey Garnae, Wade Trappe and Athina Petropulu). *Proceedings of the IEEE Global Symposium on Signal and Information Processing*, Ottawa, Canada, November 11 - 14, 2019.
- “Impact of Delays on Constrained Online Convex Optimization,” (with Xuanyu Cao and Junshan Zhang). *Proceedings of the 53rd Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 3 - 6, 2019.
- “On Stability of Linear Estimators in Poisson Noise,” (with Alex Dytso). *Proceedings of the 53rd Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 3 - 6, 2019.
- “Gradient Dynamics in Finite Potential Games,” (with Brian Swenson). *Proceedings of the 53rd Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 3 - 6, 2019.
- “Key Generation for Secure Distributed Detection in IoT,” (with Henri Hentil and Visa Koivunen). *Proceedings of the 53rd Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 3 - 6, 2019.
- “Moving-Target Defense for Detecting Coordinated Cyber-Physical Attacks in Power Grids,” (with Subhash Lakshminarayana and E. Veronica Belmega). *Proceedings of the 10th IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids (Smart-GridComm 2019)*, Beijing, China, October 21 - 24, 2019.
- “OFDM-IM-Based Spectrum Sharing for Cognitive Radio Networks,” (with Qiang Li, Miaowen Wen, Shuping Dang, Ertuğrul Başar and Fangjiong Chen). *Proceedings of the IEEE 19th International Conference on Communication Technology*, Xi’an, China, October 16 - 19, 2019.
- “Timely Cloud Computing: Preemption and Waiting,” (with Ahmed Arafa and Roy D. Yates). *Proceedings of the 57th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 25 - 26, 2019.
- “Distributed Gradient Descent: Nonconvergence to Saddle Points and the Stable-Manifold Theorem,” (with Brian Swenson, Ryan Murray and Soumya Kar). *Proceedings of the 57th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 25 - 26, 2019.
- *“Learning at the Edge.” Presented at the *IEEE Training School on Machine Learning Learning for Communications*, Paris, France, September 23 - 25, 2019.
- “Properties of the Conditional Mean Estimator in Poisson Noise,” (with Alex Dytso). *Proceedings of the IEEE Information Theory Workshop*, Visby, Sweden, August 25 - 28, 2019.

- “Estimation of Bounded Normal Mean: An Alternative Proof for the Discreteness of the Least Favorable Prior,” (with Semih Yagli and Alex Dytso). *Proceedings of the IEEE Information Theory Workshop*, Visby, Sweden, August 25 - 28, 2019.
- “Coding for Non-IID Sources and Channels: Entropic Approximations and a Question of Ahlswede,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the IEEE Information Theory Workshop*, Visby, Sweden, August 25 - 28, 2019.
- “On the Structure of the Capacity Formula for General Finite State Channels with Applications,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the IEEE Information Theory Workshop*, Visby, Sweden, August 25 - 28, 2019.
- “On the Time-Varying Distributions of Online Stochastic Optimization,” (with Xuanyu Cao and Junshan Zhang). *Proceedings of the 2019 American Control Conference*, Philadelphia, PA, July 10 - 12, 2019.
- “Variable-length Compression and Secrecy by Design,” (with Yanina Y. Shkel and Rick S. Blum). *Proceedings of the 2019 IEEE International Symposium on Information Theory*, Paris, France, July 7 - 12, 2019.
- “Using Erasure Feedback for Online Timely Updating with an Energy Harvesting Sensor,” (with Ahmed Arafa, Jing Yang and Sennur Ulukus). *Proceedings of the 2019 IEEE International Symposium on Information Theory*, Paris, France, July 7 - 12, 2019.
- “An Upper Bound on the Number of Mass Points in the Capacity Achieving Distribution for the Amplitude Constrained Additive Gaussian Channel,” (with Semih Yagli, Alex Dytso and Shlomo Shamai). *Proceedings of the 2019 IEEE International Symposium on Information Theory*, Paris, France, July 7 - 12, 2019.
- “Identification Capacity of Correlation-Assisted Discrete Memoryless Channels: Analytical Properties and Representations,” (with Holger Boche and Rafael Schaefer). *Proceedings of the 2019 IEEE International Symposium on Information Theory*, Paris, France, July 7 - 12, 2019.
- “On Estimation under Noisy Order Statistics,” (with Alex Dytso, Martina Cardone and Mishfad S. Veedu). *Proceedings of the 2019 IEEE International Symposium on Information Theory*, Paris, France, July 7 - 12, 2019.
- “Robust Power Allocation for Approximately Gaussian Inputs,” (with Wei Cao, Alex Dytso, Michael Fauß and Gang Feng). Presented at the *IEEE International Symposium on Information Theory*, Paris, France, July 7 - 12, 2019.
- *“Turing Meets Shannon: On the Algorithmic Computability of the Capacities of Secure Communication Systems,” (invited thematic paper, with Rafael F. Schaefer and Holger Boche). *Proceedings of the 20th IEEE Workshop on Signal Processing Advances in Wireless Communications*, Cannes, France, July 2 - 5, 2019.
- “Tight Bounds on the Weighted Sum of MMSEs with Applications in Distributed Estimation,” (with Michael Fauß, Abdelhak M. Zoubir, Alex Dytso and Nagananda Kyatsandra). *Proceedings of the 20th IEEE Workshop on Signal Processing Advances in Wireless Communications*, Cannes, France, July 2 - 5, 2019.
- *“On Ultra-Reliable and Low Latency Simultaneous Information and Energy Transmission Systems,” (with Nizar Khalfet, Samir M. Perlaza and Ali Tajer). *Proceedings of the 20th IEEE Workshop on Signal Processing Advances in Wireless Communications*, Cannes, France, July 2 - 5, 2019.
- “Fundamentals for Low Latency Communications.” Presented at the *Princeton-TAMU Symposium on Quantum Engineering and Technology*, Princeton, NJ, June 20 - 22, 2019.
- “How to Price Fresh Data,” (with Meng Zhangy, Ahmed Arafa and Jianwei Huang). *Proceedings of the International Symposium on Modeling and Optimization of Mobile, Ad Hoc, and Wireless Networks (WiOpt 2019)*, Avignon, France, June 3 - 7, 2019.
- *“Learning at the Edge.” Presented at the *Information Modeling, Analysis, and Control of Complex Systems Workshop*, Ohio State University, Columbus, OH, June 3 - 4, 2019.
- *“Assessing the Resilience of the Texas Power Grid Network,” (with Dorcas Ofori-Boateng, Asim Kumer Dey, Yulia R. Gel, Binghui Li and Jie Zhang). *Proceedings of the 2019 IEEE Data Science Workshop*, Minneapolis, MN, June 2 - 5, 2019.

- “Graph Topology Learning and Signal Recovery Via Bayesian Inference,” (with Mahmoud Ramezani-Mayiami, Mohammad Hajimirsadeghi, Karl Skretting and Rick S. Blum). *Proceedings of the 2019 IEEE Data Science Workshop*, Minneapolis, MN, June 2 - 5, 2019.
- “Learning Requirements for Stealth Attacks,” (with Ke Sun, Iñaki Esnaola and Antonia M. Tulino). Presented at the Fifth London Symposium on Information Theory, London, UK, May 30 - 31, 2019.
- “Sum-Capacity of the MIMO Gaussian Many-Access Channel,” (with Wei Cao, Alex Dytso, Yanina Shkel and Gang Feng). *Proceedings of the IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “Impact of Strong Spatial Correlation on the Capacity Scaling of Massive MIMO,” (with Junyoung Nam, Giuseppe Caire and Mérouane Debbah). *Proceedings of the IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “Statistical Delay-Bounded QoS Provisioning Over 5G Multimedia Mobile Wireless Networks in the Finite Blocklength Regime,” (with Xi Zhang and Jingqing Wang). *Proceedings of the IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “Coded Caching under Heterogeneous User Preferences: An Effective Throughput Perspective,” (with Yawei Lu and Wei Chen). *Proceedings of the IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “Outage Analysis of Distributed CDD Systems with Mixture Interference,” (with Kyeong Jin Kim, Hongwu Liu, Marco Di Renzo, Theodoros A. Tsiftsis and Philip V. Orlik). *Proceedings of the IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “Non-Asymptotic Performances for Finite Blocklength Coding Over Nakagami- m Channels,” (with Xi Zhang and Qixuan Zhu). *Proceedings of the IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “Secure Downlink Massive MIMO NOMA Network in the Presence of a Multiple-Antenna Eavesdropper,” (with Nam-Phong Nguyen, Octavia A. Dobre, Long Dinh Nguyen and Chuyen T. Nguyen). *Proceedings of the IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “Fast Data-Driven Sensitivity Measurement for Wireless Receivers,” (with Xu Wang, Yuan Ma and Zhi Quan). *Proceedings of the IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “Source Coding at the Edge: User Preference Oriented Lossless Data Compression,” (with Yawei Lu and Wei Chen). *Proceedings of the IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “Statistical QoS Provisioning for Energy-Harvesting Based 5G Multimedia Mobile Wireless Networks Using FBC,” (with Xi Zhang and Jingqing Wang). *Proceedings of the IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “Rate Splitting for Asynchronous Uplink NOMA Systems with Cyclic Prefixed Single Carrier,” (with Hongwu Liu, Theodoros A. Tsiftsis, Kyeong Jin Kim and Kyung Sup Kwak). *Proceedings of the 5th International Workshop on Non-Orthogonal Multiple Access Techniques for 5G, IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019.
- “On the Coexistence between Full-Duplex and NOMA,” (with Zhiguo Ding and Pingzhi Fan). Presented at the *IEEE International Conference on Communications*, Shanghai, China, May 20 - 24, 2019. [Also appears in *IEEE Wireless Communications Letters*, Vol. 7, No. 5, pp. 692 - 695, October 2018.]
- *“Learning Requirements for Stealth Attacks,” (with Ke Sun, Iñaki Esnaola and Antonia M. Tulino). *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*, Brighton, UK, May 12 - 17, 2019.
- “Detectability of Denial-of-Service Attacks on Communication Systems,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the 44th International Conference on Acoustics, Speech, and Signal Processing*, Brighton, UK, May 12 - 17, 2019.
- “On the Computability of the Secret Key Capacity under Rate Constraints,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the 44th International Conference on Acoustics, Speech, and Signal Processing*, Brighton, UK, May 12 - 17, 2019.

- *“Some Aspects of Totally Positive Kernels Useful in Information Theory,” (with Semih Yagli, Alex Dytso and Shlomo Shamai). *Proceedings of the IEEE Wireless Communications and Networking Conference*, Marrakech, Morocco, April 15 - 18, 2019.
- *“Secure Key Generation for Distributed Inference in IoT,” (with Henri Hentilä, Visa Koivunen and Rick Blum). *Proceedings of the 53rd Annual Conference on Information Systems and Sciences*, Baltimore, MD, March 20 - 22, 2019.
- *“Parameter Estimation and Secrecy by Design,” (with Yanina Shkel). *Proceedings of the 53rd Annual Conference on Information Systems and Sciences*, Baltimore, MD, March 20 - 22, 2019.
- “Statistical QoS-Driven Energy-Efficiency Optimization for URLLC Over 5G Mobile Networks in the Finite Blocklength Regime,” (with Xi Zhang and Jingqing Wang). *Proceedings of the 53rd Annual Conference on Information Systems and Sciences*, Baltimore, MD, March 20 - 22, 2019.
- *“Privacy-Utility Tradeoffs.” Presented at the *Symposium on Emerging Computing and Networking, Celebrating IISc CSA Department’s Golden Jubilee*, Indian Institute of Science, Bangalore, India, January 4, 2019.
- “On Lossy Compression of Generalized Gaussian Sources,” (with Alex Dytso, Ronit Bustin and Shlomo Shamai). *Proceedings of the 2018 IEEE International Conference on the Science of Electrical Engineering*, Eilat, Israel, December 12 - 14, 2018.
- “Performance Evaluation of Secure Communication Systems on Turing Machines,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the 2018 IEEE International Workshop on Information Forensics and Security*, Hong Kong, China, December 11 - 13, 2018.
- “Physical-Layer Security for Indoor Visible Light Communications with Space Shift Keying Modulation,” (with Osama Hassan, Erdal Panayirci and Harald Haas). *Proceedings of the IEEE Global Communications Conference*, Abu Dhabi, UAE, December 9 - 13, 2018.
- “Group Paging for Massive Machine-Type Communications with Diverse Access Success Probability Requirements,” (with Wei Cao, Alex Dytso, Gang Feng and Zhi Chen). *Proceedings of the IEEE Global Communications Conference*, Abu Dhabi, UAE, December 9 - 13, 2018.
- “Sparse Channel Estimation for Space-Time Block Coded OFDM-Based Underwater Acoustic Channels,” (with Mhd. Tahssin Altabbaa, Arif Selcuk Ogrenci and Erdal Panayirci). *Proceedings of the IEEE Global Communications Conference*, Abu Dhabi, UAE, December 9 - 13, 2018.
- “Performance Analysis of Spectrum Sharing Systems with Distributed CDD,” (with Kyeong Jin Kim, Hongwu Liu and Marco Di Renzo). *Proceedings of the IEEE Global Communications Conference*, Abu Dhabi, UAE, December 9 - 13, 2018.
- “Securing Downlink Non-Orthogonal Multiple Access Systems by Trusted Relays,” (with Ahmed Arafa, Wonjae Shin and Mojtaba Vaezi). *Proceedings of the IEEE Global Communications Conference*, Abu Dhabi, UAE, December 9 - 13, 2018.
- “Energy-Efficient Power Allocation for Uplink NOMA,” (with Ming Zeng, Animesh Yadav and Octavia A. Dobre). *Proceedings of the IEEE Global Communications Conference*, Abu Dhabi, UAE, December 9 - 13, 2018.
- “A Stackelberg Game Approach to Large-Scale Edge Caching,” (with Zijie Zheng, Lingyang Song, Zhu Han and Geoffrey Y. Li). *Proceedings of the IEEE Global Communications Conference*, Abu Dhabi, UAE, December 9 - 13, 2018.
- “Pricing for Content Pushing with Request Delay Information: A Stackelberg Game Approach,” (with Wei Huang and Wei Chen). *Proceedings of the IEEE Global Communications Conference*, Abu Dhabi, UAE, December 9 - 13, 2018.
- “Peer to Peer Packet Dispatching for Local Area Packetized Power Networks with Multiple Routers,” (with Hongliang Zhang, Lingyang Song and Yonghui Li). *Proceedings of the IEEE Global Communications Conference*, Abu Dhabi, UAE, December 9 - 13, 2018.
- “Capacity Achieving Distribution for the Amplitude Constrained Additive Gaussian Channel: An Upper Bound on the Number of Mass Points,” (with Alex Dytso, Semih Yagli and Shlomo Shamai). Presented at the *2018 IEEE Information Theory Workshop*, Guangzhou, China, November 25 - 29, 2018.

- “Capacity of the Vector Gaussian Channel in the Small Amplitude Regime,” (with Alex Dytso and Shlomo Shamai). *Proceedings of the 2018 IEEE Information Theory Workshop*, Guangzhou, China, November 25 - 29, 2018.
- “Optimal Inputs for Some Classes of Degraded Wiretap Channels,” (with Alex Dytso, Malcolm Egan, Samir M. Perlaza and Shlomo Shamai). *Proceedings of the 2018 IEEE Information Theory Workshop*, Guangzhou, China, November 25 - 29, 2018.
- “An Approximate Nash Region for the Gaussian Interference Channel with Noisy Output Feedback,” (with Victor Quintero, Samir M. Perlaza and Jean-Marie Gorce). *Proceedings of the 2018 IEEE Information Theory Workshop*, Guangzhou, China, November 25 - 29, 2018.
- *“Role of Local Geometry in Robustness of Power Grid Networks,” (with Umar Islambekov, Asim Kumer Dey and Yulia R. Gel). *Proceedings of the 6th IEEE Global Conference on Signal and Image Processing*, Anaheim, CA, November 26 - 29, 2018.
- “Relay-Aided Secure Broadcasting for VLC,” (with Ahmed Arafa and Erdal Panayirci). *Proceedings of the 6th IEEE Global Conference on Signal and Image Processing*, Anaheim, CA, November 26 - 29, 2018.
- “A Unified Framework for Caching in Arbitrary Networks,” (with Yawei Lu and Wei Chen). *Proceedings of the IEEE International Conference on Digital Signal Processing*, Shanghai, China, November 19 - 21, 2018.
- *“Power Grid State Estimation Following Cyber-physical Attacks,” (with Saleh Soltan, Mihalis Yannakakis, Gil Zussman and Prateek Mittal). Presented at the *INFORMS Annual Meeting*, Phoenix, AZ, November 4 - 7, 2018.
- *“Privacy Amplification: Recent Developments and Applications,” (with Wei Yang and Rafael F. Schaefer). *Proceedings of the International Symposium on Information Theory and Its Applications*, Singapore, October 28 - 31, 2018.
- “Downlink Non-Orthogonal Multiple Access Systems with an Untrusted Relay,” (with Ahmed Arafa, Wonjae Shin and Mojtaba Vaezi). *Proceedings of the 52nd Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, October 28 - 31, 2018.
- “Best-Response Dynamics in Continuous Potential Games: Non-Convergence to Saddle Points,” (with Brian Swenson, Ryan Murray and Soumya Kar). *Proceedings of the 52nd Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, October 28 - 31, 2018.
- “MVG Mechanism: Differential Privacy under Matrix-Valued Query,” (with Thee Chanyaswad, Alex Dytso and Prateek Mittal). *Proceedings of the 25th ACM Conference on Computer and Communications Security*, Toronto, Ontario, October 15 -19, 2018.
- *“ k -Core Alignment for Correlated Erdős-Rényi Graphs,” (with Daniel Cullina and Prateek Mittal). *Proceedings of the 56th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, October 3 - 5, 2018.
- *“Minimax Optimal Sequential Hypothesis Tests for Multiple Hypotheses,” (invited, with Michael Fauß and Abdelhak M. Zoubir). *Proceedings of the 56th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, October 3 - 5, 2018.
- “Online Timely Status Updates with Erasures for Energy Harvesting Sensors,” (with Ahmed Arafa, Jing Yang and Sennur Ulukus). *Proceedings of the 56th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, October 3 - 5, 2018.
- “BlackIoT: IoT Botnet of High Wattage Devices Can Disrupt the Power Grid,” (with Saleh Soltan and Prateek Mittal). *Proceedings of the 27th USENIX Security Symposium*, Baltimore, MD, August 15 - 17, 2018.
- “Bayesian Regression for Robust Power Grid State Estimation Following a Cyber-Physical Attack,” (with Saleh Soltan and Prateek Mittal). *Proceedings of the 2018 IEEE Power and Energy Society General Meeting*, Portland, OR, August 5 - 10, 2018.
- “Outage Detection Using Load and Line Flow Measurements in Power Distribution Systems,” (with Raffi Sevljan, Yue Zhao, Ram Rajagopal and Andrea Goldsmith). Presented at the *2018 IEEE Power and Energy Society General Meeting*, Portland, OR, August 5 - 10, 2018.

- *“Energy Efficient Resource Optimization for a Downlink NOMA Heterogeneous Small-cell Network,” (with Fang Fang, Julian Cheng and Zhiguo Ding). *Proceedings of the Tenth IEEE Sensor Array and Multichannel Signal Processing Workshop*, Sheffield, UK, July 8 - 11, 2018.
- “An Optimal Auction Mechanism for Mobile Edge Caching,” (with Xuanyu Cao and Junshan Zhang). *Proceedings of the 38th IEEE International Conference on Distributed Computing Systems*, Vienna, Austria, July 2 - 6, 2018.
- *“Simultaneous Energy and Information Transmission: A Finite Block-Length Analysis,” (with Samir Perlaza and Ali Tajer). *Proceedings of the 19th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Kalamata, Greece, June 25 - 28, 2018.
- “Identification over Channels with Feedback: Discontinuity Behavior and Super-Activation,” (with Rafael Schaefer and Holger Boche). *Proceedings of the 2018 IEEE International Symposium on Information Theory*, Vail, Colorado, June 17 - 22, 2018.
- “A Coding Scheme for Colored Gaussian Wiretap Channels with Feedback,” (with Chong Li, Yingbin Liang and Shlomo Shamai). *Proceedings of the 2018 IEEE International Symposium on Information Theory*, Vail, Colorado, June 17 - 22, 2018.
- “On the Structure of the Least Favorable Prior Distributions,” (with Alex Dytso, Ronit Bustin and Shlomo Shamai). *Proceedings of the 2018 IEEE International Symposium on Information Theory*, Vail, Colorado, June 17 - 22, 2018.
- “Sum-Capacity of MIMO Gaussian Many-Access Channel,” (with Wei Cao, Alex Dytso, Yanina Shkel, and Gang Feng). Presented at the *2018 IEEE International Symposium on Information Theory*, Vail, Colorado, June 17 - 22, 2018.
- *“Information Theoretic Approaches to Privacy and Security in the Internet of Things.” Presented at the *National Academies Meeting on Statistics and Data Science for Cyber Security and a Secure Internet of Things*, Washington, DC, June 14, 2018.
- “Tight MMSE Bounds for the AGN Channel under KL Divergence Constraints on the Input Distribution,” (with Michael Fauß, Alex Dytso and Abdelhak M. Zoubir). *Proceedings of the 2018 IEEE Statistical Signal Processing Workshop*, Freiberg, Germany, June 10 - 13, 2018.
- *“Learning to Infer Power Grid Topologies: Performance and Scalability,” (with Yue Zhao and Jianshu Chen). *Proceedings of the 2018 IEEE Data Science Workshop*, Lausanne, Switzerland, June 4 - 6, 2018.
- *“Cooperative Wireless Powered Communication Networks with Interference Harvesting,” (with Won-jae Shin, Mojtaba Vaezi and Jungwoo Lee). Presented at the *87th IEEE Vehicular Technology Conference*, Porto, Portugal, June 3 - 6, 2018.
- “On the Application of NOMA to Wireless Caching,” (with Zhiguo Ding, Pingzhi Fan, George K. Karagiannidis and Robert Schober). *Proceedings of the IEEE International Conference on Communications*, Kansas City, MO, May 20 - 24, 2018.
- “Diversity Gain Analysis of Distributed CDD Systems in Non-identical Frequency Selective Fading,” (with Kyeong Jin Kim, Marco Di Renzo, Hongwu Liu and Philip V. Orlik). *Proceedings of the IEEE International Conference on Communications*, Kansas City, MO, May 20 - 24, 2018.
- “A Novel Online Convex Optimization Algorithm Based on Virtual Queues,” (with Xuanyu Cao and Junshan Zhang). *Proceedings of the IEEE International Conference on Communications*, Kansas City, MO, May 20 - 24, 2018.
- “Optimal Renewable Penetration in Energy Procurement and Demand Response,” (with Xuanyu Cao and Junshan Zhang). *Proceedings of the IEEE International Conference on Communications*, Kansas City, MO, May 20 - 24, 2018.
- “Tradeoff of Content Sharing Efficiency and Secure Transmission in Coded Caching Systems,” (with Yinan Ding, Li Wang, Huaqing Wu and Xuemin (Sherman) Shen). *Proceedings of the IEEE International Conference on Communications*, Kansas City, MO, May 20 - 24, 2018.
- “Secrecy Performance Analysis of Distributed CDD Based Cooperative Systems with Jamming,” (with Kyeong Jin Kim, Hongwu Liu, Marco Di Renzo and Philip V. Orlik). *Proceedings of the IEEE International Conference on Communications*, Kansas City, MO, May 20 - 24, 2018.

- “Achieving Minimum Error in MISO Optical Spatial Modulation,” (with Anil Yesilkaya, Tezcan Cogan, Erdal Panayirci and Harald Haas). *Proceedings of the IEEE International Conference on Communications*, Kansas City, MO, May 20 - 24, 2018.
- “Energy-Efficient Power Allocation for Hybrid Multiple Access Systems,” (with Ming Zeng, Animesh Yadav and Octavia A. Dobre). *Proceedings of the 3rd International Workshop on Non-Orthogonal Multiple Access Techniques for 5G*, Kansas City, MO, May 20, 2018.
- “Optimal Power Allocation in Cache-Aided Non-Orthogonal Multiple Access Systems,” (with Khai Nguyen Doan, Wonjae Shin and Mojtaba Vaezi). *Proceedings of the 3rd International Workshop on Non-Orthogonal Multiple Access Techniques for 5G*, Kansas City, MO, May 20, 2018.
- “A Matrix Generalization of Relative Entropy and Entropy Power Inequalities,” (with Alex Dytso, Ronit Bustin, Dongning Guo and Shlomo Shamai). *Proceedings of Entropy 2018 - From Physics to Information Sciences and Geometry*, Barcelona, Spain, May 14 - 16, 2018.
- “On the Equivalence of f -Divergence Balls and Density Bands in Robust Detection,” (with Michael Fauß and Abdelhak M. Zoubir). *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*, Alberta, Canada, April 15 - 20, 2018.
- “When are Discrete Channel Inputs Optimal? - Optimization Techniques and Some New Results,” (with Alex Dytso, Mario Goldenbaum and Shlomo Shamai). *Proceedings of the 52nd Annual Conference on Information Systems and Sciences*, Princeton, NJ, March 21 - 23, 2018.
- “Modeling Psychophysical Interactions in a Smart World,” (with Arnold Glass, Narayan Mandayam and Walid Saad). Presented at the *52nd Annual Conference on Information Systems and Sciences*, Princeton, NJ, March 21 - 23, 2018.
- “Secure Lossless Compression,” (with Yanina Y. Shkel and Rick S. Blum). *Proceedings of the 52nd Annual Conference on Information Systems and Sciences*, Princeton, NJ, March 21 - 23, 2018.
- “Age-Minimal Online Policies for Energy Harvesting Sensors with Incremental Battery Recharges,” (with Ahmed Arafa, Jing Yang and Sennur Ulukus). *Proceedings of the 2018 Information Theory and Applications Workshop*, Pacific Beach, CA, February 11 - 16, 2018.
- *“Smart Routing in Smart Grids,” (with S. Rasoul Etesami, Walid Saad and Narayan Mandayam). *Proceedings of the 56th IEEE Conference on Decision and Control*, Melbourne, Australia, December 12 - 15, 2017.
- *“Intentional Islanding of Power Grids with Data Depth,” (with Asim Dey and Yulia Gel). *Proceedings of the 2017 IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing*, Curaçao, Dutch Antilles, December 10 - 13, 2017.
- “Latency and Reliability-Aware Task Offloading and Resource Allocation for Mobile Edge Computing,” (with Chen-Feng Liu and Mehdi Bennis). *Proceedings of the 6th International Workshop on Emerging Technologies for 5G and Beyond Wireless and Mobile Networks*, held in conjunction with the *IEEE Global Communications Conference*, Singapore, December 8, 2017.
- “Dependent Differential Privacy for Correlated Data,” (with Jun Zhao and Junshan Zhang). *Proceedings of the 5th IEEE GLOBECOM Workshop on Trusted Communications with Physical Layer Security*, Singapore, December 8, 2017.
- “Robust Secrecy Rate Maximization for MISO WIPT System with Transmit TS Scheme,” (with Ali A. Nasir and Hoang D. Tuan). *Proceedings of the 5th IEEE GLOBECOM Workshop on Trusted Communications with Physical Layer Security*, Singapore, December 8, 2017.
- “Secrecy Throughput of Wireless Interference Networks with Uncertain Channel State Information,” (with Zhichao Sheng, Ali A. Nasir and Hoang D. Tuan). *Proceedings of the 5th IEEE GLOBECOM Workshop on Trusted Communications with Physical Layer Security*, Singapore, December 8, 2017.
- “Caching with Statistical Request Delay Information,” (with Wei Chen). *Proceedings of the IEEE Global Communications Conference*, Singapore, December 4 - 8, 2017.
- “Upper and Lower Bounds on the Capacity of Amplitude-Constrained MIMO Channels,” (with Alex Dytso, Mario Goldenbaum and Shlomo Shamai). *Proceedings of the IEEE Global Communications Conference*, Singapore, December 4 - 8, 2017.

- “Learning-Based Content Caching with Time-Varying Popularity Profiles,” (with Bettagere N. Bharath, Kyatsandra G. Nagananda and Deniz Gündüz). *Proceedings of the IEEE Global Communications Conference*, Singapore, December 4 - 8, 2017.
- “Convex Quadratic Programming for Maximizing Sum Throughput in MIMO-NOMA Multicell Networks,” (with Van-Dinh Nguyen, Hoang D. Tuan, Trung Q. Duong and Oh-Soon Shin). *Proceedings of the IEEE Global Communications Conference*, Singapore, December 4 - 8, 2017.
- “Joint Pushing and Caching Based on Physical Layer Multicasting and Network Coding,” (with Yawei Lu and Wei Chen). *Proceedings of the IEEE Global Communications Conference*, Singapore, December 4 - 8, 2017.
- “Dynamic Resource Matching for Socially Cooperative Caching in IoT Networking,” (with Li Wang, Huaqing Wu, Zhu Han and Ping Zhang). *Proceedings of the IEEE Global Communications Conference*, Singapore, December 4 - 8, 2017.
- “Trust Degree Based Beamforming for Cooperative Communication Systems,” (with Mojtaba Vaezi, Hazer Inaltekin, Wonjae Shin and Junshan Zhang). *Proceedings of the IEEE Global Communications Conference*, Singapore, December 4 - 8, 2017.
- “A Fair Individual Rate Comparison between MIMO-NOMA and MIMO-OMA,” (with Ming Zeng, Animesh Yadav and Octavia A. Dobre). *Proceedings of the 2nd International Workshop on Non-Orthogonal Multiple Access Techniques for 5G*, held in conjunction with the *IEEE Global Communications Conference*, Singapore, December 4, 2017.
- *“Motif-Based Analysis of Power Grid Robustness Under Attacks,” (with Asim Dey and Yulia R. Gel). *Proceedings of the 2016 IEEE Global Conference on Signal and Information Processing*, Montreal, Canada, November 14 -16, 2017.
- *“Privacy Amplification for Low-Latency Physical-Layer Communications,” (with Wei Yang and Rafael Schaefer). Presented at the *Workshop on Low-latency Wireless Random Access*, MIT, Cambridge, MA, November 2 - 3, 2017.
- *“Physical Layer Security in Massive MIMO Systems,” (with Rafael Schaefer and Gayan Amarasuriya). *Proceedings of the 51st Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, October 29 - November 1, 2017.
- “Optimal Demand-Side Management for Joint Privacy-Cost Optimization with Energy Storage,” (with Giulio Giacconi and Deniz Gündüz). *Proceedings of the IEEE International Conference on Smart Grid Communications*, Dresden, Germany, October 23 - 26, 2017.
- “Information-Theoretic Attacks in the Smart Grid,” (with Ke Sun, Iñaki Esnaola and Samir M. Perlaza). *Proceedings of the IEEE International Conference on Smart Grid Communications*, Dresden, Germany, October 23 - 26, 2017.
- *“An FDR-Oriented Approach to Multiple Sequential Fault Detection and Isolation,” (with Jie Chen and Wenyi Zhang). *Proceedings of the 55th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, October 4 - 6, 2017.
- “On the Equality Condition for the I-MMSE Proof of the Entropy Power Inequality,” (with Alex Dytso, Ronit Bustin and Shlomo Shamai). *Proceedings of the 55th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, October 4 - 6, 2017.
- *“Privacy in Networks of Interacting Agents.” Presented at the *Workshop on Emerging Applications on Control and System Theory*. University of Texas at Dallas, Richardson, TX, September 28 - 30, 2017.
- “A Sequential Constraint Relaxation Algorithm for Rank-One Constrained Problems,” (with Pan Cao and John Thompson). *Proceedings of the 25th European Signal Processing Conference*, Kos, Greece, August 27 - September 2, 2017.
- “Beamforming and Power Allocation for Energy-Efficient Massive MIMO,” (with Long D. Nguyen, Hoang D. Tuan and Trung Q. Duong). *Proceedings of the 22nd International Conference on Digital Signal Processing*, London, UK, August 23 - 25, 2017.
- *“User Request Prediction Increases Energy Efficiency in AWGN Channels,” (with Wei Huang and Wei Chen). *Proceedings of the 18th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Sapporo, Japan, July 3 - 6, 2017.

- “Outage Analysis of a Cognitive Radio System with Cooperative Non-Orthogonal Multiple Access,” (with Sunyoung Lee, Trung Q. Duong and Hinal A. Suraweera). *Proceedings of the 18th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Sapporo, Japan, July 3 - 6, 2017.
- “Multi-Leader Multi-Follower Game-Based ADMM for Big Data Processing,” (with Zijie Zheng, Lingyang Song, Zhu Han and Geoffrey Ye Li). *Proceedings of the 18th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Sapporo, Japan, July 3 - 6, 2017.
- “On Additive Channels with Generalized Gaussian Noise,” (with Alex Dytso, Ronit Bustin and Shlomo Shamai). *Proceedings of the 2017 IEEE International Symposium on Information Theory*, Aachen, Germany, June 25 - 30, 2017.
- “Outer Bounds for Multiple Access Channels with State Known at One Encoder,” (with Wei Yang, Yingbin Liang and Shlomo Shamai). *Proceedings of the 2017 IEEE International Symposium on Information Theory*, Aachen, Germany, June 25 - 30, 2017.
- “Secrecy-Reliability Tradeoff for Semi-Deterministic Wiretap Channels at Finite Blocklength,” (with Wei Yang and Rafael F. Schaefer). *Proceedings of the 2017 IEEE International Symposium on Information Theory*, Aachen, Germany, June 25 - 30, 2017.
- “Nash Region of the Linear Deterministic Interference Channel with Noisy Output Feedback,” (with Victor Quintero and Samir M. Perlaza). *Proceedings of the 2017 IEEE International Symposium on Information Theory*, Aachen, Germany, June 25 - 30, 2017.
- “A Generalized Ozarow-Wyner Capacity Bound with Applications,” (with Alex Dytso, Mario Goldenbaum and Shlomo Shamai). *Proceedings of the 2017 IEEE International Symposium on Information Theory*, Aachen, Germany, June 25 - 30, 2017.
- “Characterization of Super-Additivity and Discontinuity Behavior of the Capacity of Arbitrarily Varying Channels under List Decoding,” (with Holger Boche and Rafael Schaefer). *Proceedings of the 2017 IEEE International Symposium on Information Theory*, Aachen, Germany, June 25 - 30, 2017.
- “MIMO Gaussian Wiretap Channels with Two Transmit Antennas: Optimal Precoding and Power Allocation,” (with Mojtaba Vaezi, Wonjae Shin and Jungwoo Lee). *Proceedings of the 2017 IEEE International Symposium on Information Theory*, Aachen, Germany, June 25 - 30, 2017.
- “Game Theoretic Study of Protecting MIMO Transmissions Against Smart Attacks,” (with Yanda Li, Liang Xiao and Huaiyu Dai.) *Proceedings of the IEEE International Conference on Communications*, Paris, France, May 21 - 25, 2017.
- “On the Coexistence of Non-orthogonal Multiple Access and Millimeter-Wave Communications,” (with Zhiguo Ding and Pingzhi Fan). *Proceedings of the IEEE International Conference on Communications*, Paris, France, May 21 - 25, 2017.
- “Multicast-Pushing with Human-in-the-loop: Where Social Networks Meet Wireless Communications,” (with Qi Yan, Wei Chen and Bo Bai). *Proceedings of the IEEE International Conference on Communications*, Paris, France, May 21 - 25, 2017.
- “Fundamental Limits of a Dense IoT Cell in the Uplink,” (with Jean-Marie Gorce, Yasser Fadlallah, Jean-Marc Kelif and Azeddine Gati). *Proceedings of the Workshop on Spatial Stochastic Models for Wireless Networks*, Paris, France, May 19, 2017.
- “Cumulative Prospect Theoretic Study of a Cloud Storage Defense Game Against Advanced Persistent Threats,” (with Dongjin Xu, Liang Xiao and Narayan Mandayam). *Proceedings of the International Workshop on Security and Privacy in Big Data*, in connection with the IEEE International Conference on Computer Communications, Atlanta, GA, May 1 - 4, 2017.
- *“Minimum Entropy Pursuit: Noise Analysis,” (with Shirin Jalali). *Proceedings of the 42nd IEEE International Conference on Acoustics, Speech and Signal Processing*, New Orleans, LA, March 5 - 9, 2017.
- “Sequential Joint Signal Detection and Signal-to-Noise Ratio Estimation,” (with Michael Fauß, Kyatsandra G. Nagananda and Abdelhak M. Zoubir). *Proceedings of the 42nd IEEE International Conference on Acoustics, Speech and Signal Processing*, New Orleans, LA, March 5 - 9, 2017.
- “Two-dimensional Anti-jamming Communication Based on Deep Reinforcement Learning,” (with Guo An Han, Liang Xiao). *Proceedings of the 42nd IEEE International Conference on Acoustics, Speech and Signal Processing*, New Orleans, LA, March 5 - 9, 2017.

- *“Some Results on the Generalized Gaussian Distribution,” (with Alex Dytso, Ronit Bustin, Natasha Devroye, Shlomo Shamai, and Daniela Tuninetti). Presented at the *2017 Information Theory and Applications Workshop*, Pacific Beach, CA, February 12 -16, 2017.
- *“Wiretap Channels: Non-Asymptotic Fundamental Limits,” (with Wei Yang and Rafael Schaefer). Presented at the *2017 Information Theory and Applications Workshop*, Pacific Beach, CA, February 12 -16, 2017.
- *“On Secure Computation over Linear Multiple-access Wiretap Channels,” (with Mario Goldenbaum and Holger Boche). Presented at the *2017 Information Theory and Applications Workshop*, Pacific Beach, CA, February 12 -16, 2017.
- *“Random Tree Search Algorithm for Nash Equilibrium in Capacitated Selfish Replication Games,” (with Seyed Nematollah Ahmadyany and Seyed Rasoul Etesami). *Proceedings of the IEEE Conference on Decision and Control*, Las Vegas, NV, December 12 - 14, 2016.
- *“Privacy in the Smart Grid: Information, Control and Games.” Presented at the *IEEE Workshop on Teams, Games and Control* (in conjunction with the *IEEE Conference on Decision and Control*), Las Vegas, NV, December 11, 2016.
- *“Efficient Neural Network Architecture for Topology Identification in Smart Grid,” (with Yue Zhao and Jianshu Chen). *Proceedings of the 2016 IEEE Global Conference on Signal and Information Processing*, Washington, DC, December 7 - 9, 2016.
- “Secrecy Performance of Cooperative Single Carrier Systems with Unreliable Backhaul Connections,” (with Phee Lep Yeoh, Kyeong Jin Kim and Philip V. Orlik). *Proceedings of the 2016 IEEE Global Communications Conference*, Washington, DC, December 4 - 8, 2016.
- “Content Pushing Based on Physical Layer Multicasting and Request Delay Information,” (with Yawei Lu and Wei Chen). *Proceedings of the 2016 IEEE Global Communications Conference*, Washington, DC, December 4 - 8, 2016.
- “Prospect Theoretic Study of Cloud Storage Defense Against Advanced Persistent Threats,” (with Dongjin Xu, Yanda Li, Liang Xiao and Narayan Mandayam). *Proceedings of the 2016 IEEE Global Communications Conference*, Washington, DC, December 4 - 8, 2016.
- “Spatial Continuum Model: Toward the Fundamental Limits of Dense Wireless Networks,” (with Jean-Marie Gorce and Jean-Marc Kelif). *Proceedings of the 2016 IEEE Global Communications Conference*, Washington, DC, December 4 - 8, 2016.
- “Finite Blocklength Information Theory: What is the Practical Impact on Wireless Communications?” (with Philippe Mary, Jean-Marie Gorce and Ayse Unsul). *Proceedings of the IEEE International Workshop on Low-Layer Implementation and Protocol Design for IoT Applications (IoT-LINK), 2016 IEEE Global Communications Conference*, Washington, DC, December 4, 2016.
- *“Secure Computation of Linear Functions over Linear Discrete Multiple-Access Wiretap Channels,” (with Mario Goldenbaum and Holger Boche). *Proceedings of the 50th Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 6 - 9, 2016.
- *“On Parallel Sequential Change Detection Controlling False Discovery Rate,” (with Jie Chen and Wenyi Zhang). *Proceedings of the 50th Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 6 - 9, 2016.
- *“Nonparametric Composite Outlier Detection,” (with Weiguang Wang and Yingbin Liang). *Proceedings of the 50th Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 6 - 9, 2016.
- “Real Time Electricity Theft Detection in Microgrids Through Wireless Sensor Networks,” (with Muhammad Tariq). *Proceedings of IEEE SENSORS*, Orlando, FL, October 30 - November 2, 2016.
- “Multiple Key Generation with Restricted Public Discussion Structure,” (with Wenwen Tu, Mario Goldenbaum and Lifeng Lai). *Proceedings of the 3rd Workshop on Physical-Layer Methods for Wireless Security, IEEE Conference on Communications and Network Security*, Philadelphia, PA, October 17 - 19, 2016.
- “A Data Processing Architecture for Realtime Decoding of Extremely Long LDPC Codes,” (with Quanqiang Miao, Bo Bai and Wei Chen). *Proceedings of the 2016 International Conference on Digital Signal Processing*, Beijing, China, October 16 - 18, 2016.

- “Hypergraph Based Three-Dimensional Matching in Wireless Distributed Storage over D2D Links,” (with Li Wang, Huaqing Wu, Yinan Ding and Wei Chen). *Proceedings of the 2016 International Conference on Digital Signal Processing*, Beijing, China, October 16 - 18, 2016.
- “Prospect Theory for Enhanced Smart Grid Resilience Using Distributed Energy Storage,” (with Georges El Rahi, Anibal Sanjab, Walid Saad and Narayan B. Mandayam). *Proceedings of the 54th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 28 - 29, 2016.
- *“On the Number of Users Served in MIMO NOMA Cellular Networks,” (with Wonjae Shin and Mojtaba Vaezi). *Proceedings of the Thirteenth International Symposium on Wireless Communication Systems*, Poznan, Poland, September 20 - 23, 2016.
- “On the Applications of the Minimum Mean p -th Error (MMPE) to Information Theoretic Quantities,” (with Alex Dytso, Ronit Bustin, Daniela Tuninetti, Natasha Devroye and Shlomo Shamai). *Proceedings of the 2016 IEEE Information Theory Workshop*, Cambridge, UK, September 11 - 14, 2016.
- “ K -User Degraded Broadcast Channel with Secrecy Outside a Bounded Range,” (with Shaofeng Zou, Yingbin Liang, Lifeng Lai and Shlomo Shamai). *Proceedings of the 2016 IEEE Information Theory Workshop*, Cambridge, UK, September 11 - 14, 2016.
- “Simultaneously Generating Multiple Keys over a Cascade of a Noiseless Channel and a Wiretap Channel,” (with Wenwen Tu, Mario Goldenbaum and Lifeng Lai). *Proceedings of the 2016 IEEE Information Theory Workshop*, Cambridge, UK, September 11 - 14, 2016.
- “On Secure Computation Over the Binary Modulo-2 Adder Multiple-Access Wiretap Channel,” (with Mario Goldenbaum and Holger Boche). *Proceedings of the 2016 IEEE Information Theory Workshop*, Cambridge, UK, September 11 - 14, 2016.
- “Using Compression Codes in Compressed Sensing,” (with Farideh Ebrahim Rezagah, Shirin Jalali and Elza Erkip). *Proceedings of the 2016 IEEE Information Theory Workshop*, Cambridge, UK, September 11 - 14, 2016.
- “Prospect Theory for Prosumer-Centric Energy Trading in the Smart Grid,” (with George El Rahi, Walid Saad, Arnold Glass and Narayan Mandayam). *Proceedings of the 2016 IEEE PES Innovative Smart Grid Technologies Conference*, Minneapolis, MN, September 6 - 9, 2016.
- “Cognitive Hierarchy Theory for Heterogeneous Uplink Multiple Access in the Internet of Things,” (with Nof Abuzainab and Walid Saad). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “A Beta-Beta Achievability Bound with Applications,” (with Wei Yang, Austin Collins, Giuseppe Durisi, and Yuri Polyanskiy). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “Super-Activation as a Unique Feature of Arbitrarily Varying Wiretap Channels,” (with Rafael F. Schaefer and Holger Boche). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “Quickest Detection of Markov Networks,” (with Javad Heydari and Ali Tajer). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “On the Minimum Mean p -th Error in Gaussian Noise Channels and its Applications,” (with Alex Dytso, Ronit Bustin, Daniela Tuninetti, Natasha Devroye and Shlomo Shamai). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “Gaussian Approximation Bounds for the Downlink Interference in K -Tier Heterogeneous Cellular Networks,” (with Serkan Ak and Hazer Inaltekin). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “Downlink Outage Performance of Heterogeneous Cellular Networks,” (with Serkan Ak and Hazer Inaltekin). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “Universal Compressed Sensing,” (with Shirin Jalali). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.

- “Finite-Blocklength Bounds for Wiretap Channels,” (with Wei Yang and Rafael F. Schaefer). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “Feedback Enhances Simultaneous Wireless Information and Energy Transmission in Multiple Access Channels,” (with Selma Belhadj Amor, Samir M. Perlaza and Ioannis Krikidis). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “Rate-Distortion Dimension of Stochastic Processes,” (with Farideh Ebrahim Rezagah, Shirin Jalali and Elza Erkip). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “On Channel Dispersion Per Unit Cost,” (with Yücel Altug and Sergio Verdú). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “Multiple Non-Bayesian Change-Point Detection Controlling False Discovery Rate,” (with Jie Chen and Wenyi Zhang). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- “Guiding Blind Transmitters for K -User MISO Interference Relay Channels with Imperfect Channel Knowledge,” (with Wonjae Shin, Namyoon Lee and Jungwoo Lee). *Proceedings of the 2016 IEEE International Symposium on Information Theory*, Barcelona, Spain, July 10 - 15, 2016.
- *“Wireless Energy Harvesting Massive MIMO Relays,” (with Gayan Amarasuriya and Shang Liu). *Proceedings of the Ninth IEEE Sensor Array and Multichannel Signal Processing Workshop*, Rio de Janeiro, Brazil, July 10 - 13, 2016.
- “New Theorems on Sparsest Unobservable Attacks in Power Networks,” (with Yue Zhao and Andrea Goldsmith). *Proceedings of the 2016 American Control Conference*, Boston, MA, July 6 - 8, 2016.
- *“Mean-Field Games for Distributed Caching in Ultra-Dense Small Cell Networks,” (with Kenza Hamidouche, Walid Saad and Mérouane Debbah). *Proceedings of the 2016 American Control Conference*, Boston, MA, July 6 - 8, 2016.
- *“Secure Communication in Massive MIMO Relay Networks,” (with Gayan Amarasuriya and Rafael F. Schaefer). *Proceedings of the 17th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Edinburgh, UK, July 3 - 6, 2016.
- *“Secure Multicast Communications with Private Jammers,” (with Kanapathippillai Cumanan, Zhiguo Ding and Mai Xu). *Proceedings of the 17th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Edinburgh, UK, July 3 - 6, 2016.
- *“Decentralized MMSE Attacks in Electricity Grids,” (with Iñaki Esnaola, Samir M. Perlaza and Oliver Kosut). *Proceedings of the 2016 IEEE Statistical Signal Processing Workshop*, Palma de Mallorca, Spain, June 26 - 29, 2016.
- “A Finite Moving Average Test for Transient Change Detection in GNSS Signal Strength Monitoring,” (with Daniel Egea-Roca, Gonzalo Seco-Granados and José A. López-Salcedo). *Proceedings of the 2016 IEEE Statistical Signal Processing Workshop*, Palma de Mallorca, Spain, June 26 - 29, 2016.
- *“Learning to Infer: New Variational Inference Methods for Power Grid Topology Identification,” (with Yue Zhao and Jianshu Chen). *Proceedings of the 2016 IEEE Statistical Signal Processing Workshop*, Palma de Mallorca, Spain, June 26 - 29, 2016.
- “Joint Pushing and Caching with a Finite Receiver Buffer: Optimal Policies and Throughput Analysis,” (with Wei Chen). *Proceedings of the 2016 IEEE International Conference on Communications*, Kuala Lumpur, Malaysia, May 23 - 27, 2016.
- “Communication Theoretic Inference on Heterogeneous Data,” (with Kwang-Cheng Chen, Baturalp Mankir, Shao-Lun Huang and Lizhong Zheng). *Proceedings of the 2016 IEEE International Conference on Communications*, Kuala Lumpur, Malaysia, May 23 - 27, 2016.
- “On the Design of MIMO-NOMA Downlink and Uplink Transmission,” (with Zhiguo Ding and Robert Schober). *Proceedings of the 2016 IEEE International Conference on Communications*, Kuala Lumpur, Malaysia, May 23 - 27, 2016.
- “Simplified Han-Kobayashi Region for One-Sided and Mixed Gaussian Interference Channels,” (with Motjaba Vaezi). *Proceedings of the 2016 IEEE International Conference on Communications*, Kuala Lumpur, Malaysia, May 23 - 27, 2016.

- *“Shannon’s Work and Its Legacy,” (with Michelle Effros). Presented at *The Bell Labs Shannon Conference on the Future of the Information Age*, Murray Hill, NJ, April 28 - 29, 2016.
- “Social Learning Networks: Efficiency Optimization for MOOC Forums,” (with Christopher Brinton, Swapna Buccapatnam, Felix Ming Fai Wong and Mung Chiang). *Proceedings of the IEEE International Conference on Computer Communications (INFOCOM)*, San Francisco, CA, April 10 - 15, 2016.
- “Mobile Offloading Game Against Smart Attacks,” (with Liang Xiao, Caixia Xie, Tianhua Chen and Huaiyu Dai). *Proceedings of the Fourth International Workshop on Security and Privacy in Big Data (BigSecurity 16)*, San Francisco CA, April 10 -15, 2016.
- “Adaptive Distributed Compressed Estimation Based on Recursive Least Squares with Sensing Matrix Design,” (with Huang Bai, Songcen Xu, Sheng Li, Rodrigo C. de Lamare and Xiongxiang He). *Proceedings of the 41st IEEE International Conference on Acoustics, Speech and Signal Processing*, Shanghai, China, March 20 - 25, 2016.
- “Nonparametric Detection of an Anomalous Disk over a Two-dimensional Lattice Networks,” (with Shaofeng Zou and Yingbin Liang). *Proceedings of the 41st IEEE International Conference on Acoustics, Speech and Signal Processing*, Shanghai, China, March 20 - 25, 2016.
- “Quickest Search over Correlated Sequences with Model Uncertainty,” (with Javad Heydari and Ali Tajer). *Proceedings of the 41st IEEE International Conference on Acoustics, Speech and Signal Processing*, Shanghai, China, March 20 - 25, 2016.
- “A Low-Complexity Near-ML Differential Spatial Modulation Detector,” (with Miaowen Wen, Xiang Cheng and Yuyang Bian). Presented at the *41st IEEE International Conference on Acoustics, Speech and Signal Processing*, Shanghai, China, March 20 - 25, 2016. [Also published in *IEEE Signal Processing Letters*, Vol. 22, No. 11, pp. 1834 -1838, November 2015.]
- “Training Design and Channel Estimation in Uplink Cloud Radio Access Networks,” (with Xinqian Xie, Mugen Peng and Wenbo Wang). Presented at the *41st IEEE International Conference on Acoustics, Speech and Signal Processing*, Shanghai, China, March 20 - 25, 2016. [Also published in *IEEE Signal Processing Letters*, Vol. 22, No. 8, pp. 1060 - 1064, August 2015.]
- *“Recent Results on Broadcast Networks with Layered Decoding and Secrecy: An Overview,” (with Shaofeng Zou, Yingbin Liang, Lifeng Lai and Shlomo Shamai). *Proceedings of the 2016 International Zurich Seminar on Communications*, Zurich, Switzerland, March 2 - 4, 2016.
- *“On the Secrecy Capacity of the Z-Interference Channel,” (with Ronit Bustin, Mojtaba Vaezi and Rafael F. Schaefer). *Proceedings of the 2016 International Zurich Seminar on Communications*, Zurich, Switzerland, March 2 - 4, 2016.
- *“On Secure Broadcasting Over Parallel Channels with Independent Secret Keys,” (with Rafael Schaefer and Ashish Khisti). *Proceedings of the 2016 International Zurich Seminar on Communications*, Zurich, Switzerland, March 2 - 4, 2016.
- *“A Beta-beta Achievability Channel Coding Bound with Applications,” (with Wei Yang, Austin Collins, Giuseppe Durisi and Yury Polyanskiy). *Proceedings of the 2016 International Zurich Seminar on Communications*, Zurich, Switzerland, March 2 - 4, 2016.
- *“Secure Communication in Massive MIMO Relay Networks,” (with Gayan Amarasuriya and Rafael Schaefer). Presented at the *2016 Information Theory and Applications Workshop*, La Jolla, CA, January 30 - February 5, 2016.
- *“On the Gaussian Channel with Feedback under Probabilistic Power Constraints,” (with Yücel Altug and Sergio Verdú). Presented at the *2016 Information Theory and Applications Workshop*, La Jolla, CA, January 30 - February 5, 2016.
- *“On Communications through a Gaussian Channels with an MMSE Disturbance Constraint,” (with Alex Dytso, Ronit Bustin, Daniela Tuninetti, Natasha Devroye and Shlomo Shamai). *Proceedings of the 2016 Information Theory and Applications Workshop*, La Jolla, CA, January 30 - February 5, 2016.
- “Cooperative Beamforming and User Selection for Physical Layer Security in Relay Systems,” (with Tiep M. Hoang, Trung Q. Duong, Himal A. Suraweera and Chintha Tellambura). *Proceedings of the 2015 IEEE Global Communications Conference*, San Diego, CA, December 6 - 10, 2015.

- “User Pairing in Non-Orthogonal Multiple Access Downlink Transmissions,” (with Zhiguo Ding and Pingzhi Fan). *Proceedings of the 2015 IEEE Global Communications Conference*, San Diego, CA, December 6 - 10, 2015.
- “Performance of MIMO-NOMA Downlink Transmissions,” (with Zhiguo Ding and Fumiyuki Adachi). *Proceedings of the 2015 IEEE Global Communications Conference*, San Diego, CA, December 6 - 10, 2015.
- “Wireless Information and Power Transfer in Multi-Way Relay Networks With Massive MIMO,” (with Gayan Amarasuriya). *Proceedings of the 2015 IEEE Global Communications Conference*, San Diego, CA, December 6 - 10, 2015. [Recipient of the Best Paper Award in the Wireless Communications Symposium.]
- *“The Multiple-Access Channel with an External Eavesdropper: Trusted vs. Untrusted Users,” (with Mario Goldenbaum and Rafael F. Schaefer). *Proceedings of the 49th Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 8 - 11, 2015.
- *“On Limiting Expressions for the Capacity Regions of Gaussian Interference Channels,” (with Mojtaba Vaezi). *Proceedings of the 49th Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 8 - 11, 2015.
- *“Strong Secrecy for Interference Channels from Channel Resolvability,” (with Zhao Wang, Rafael F. Schaefer, Mikael Skogland and Ming Xiao). *Proceedings of the 49th Annual Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 8 - 11, 2015.
- “A Canonical Coalitional Game Theoretic Approach for Energy Management for Nanogrids,” (with Wayes Tushar, Chau Yuen, David B. Smith and Naveed Ul Hassan). *Proceedings of IEEE Innovation Smart Grid Technologies (ISGT) - Asia*, Bangkok, Thailand, November 4 - 6, 2015.
- “Smart Grid Energy Management for a Shared Facility Controller with Renewables,” (with Wayes Tushar, Jian A. Zhang, Chau Yuen and David B. Smith). *Proceedings of the IEEE International Conference on Smart Grid Communications*, Miami, FL, November 2 - 5, 2015.
- “Variable-length Channel Codes with Probabilistic Delay Guarantees,” (with Yücel Altug and Sergio Verdú). *Proceedings of the 53rd Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 30 - October 2, 2015.
- *“Quickest Detection of Gauss-Markov Random Fields,” (with Javad Heydari and Ali Tajer). *Proceedings of the 53rd Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 30 - October 2, 2015.
- “An I-MMSE Based Graphical Representation of Rate and Equivocation for the Gaussian Broadcast Channel,” (with Ronit Bustin, Rafael F. Schaefer and Shlomo Shamai). Presented at the *Second Workshop on Physical-layer Methods for Wireless Security, IEEE Conference on Communications and Network Security*, Florence Italy, September 30, 2015.
- *“Privacy in Networks of Interacting Agents.” Presented at the *Workshop on Coordination, Cooperation and Learning in Wireless (and more) Networks*, EURECOM, Sophia-Antipolis, France, September 4, 2015.
- *“On the Application of SWIPT to 5G Non-orthogonal Multiple Access,” (with Yuanwei Liu, Zhiguo Ding and Maged ElKashlan). *Proceedings of the 2015 European Signal Processing Conference*, Nice, France, August 31 - September 4, 2015.
- “Cooperation and Storage Tradeoffs in Power-Grids under DC Power Flow Constraints and Inefficient Storage,” (with Subhash Lakshminarayana, Wei Wei and Tony Q.S. Quek). *Proceedings of the 2015 IEEE Power and Energy Society General Meeting*, Denver, CO, July 26 - 30, 2015.
- “Wind Aggregation Via Risky Power Markets,” (with Yue Zhao, Junjie Qin, Ram Rajagopal and Andrea Goldsmith). *Proceedings of the 2015 IEEE Power and Energy Society General Meeting*, Denver, CO, July 26 - 30, 2015.
- “Network Protection Games,” (with Melike GURSOY and Andrey Garnaev). Presented at the *27th European Conference on Operational Research*, Glasgow, Scotland, July 12 - 15, 2015.
- *“Digital Backpropagation in the Nonlinear Fourier Domain,” (with Sander Wahls, Son Thai Le, Yaroslav Prynlyskiy and Sergei K. Turitsyn). *Proceedings of the 16th IEEE International Workshop on Signal*

- Processing Advances in Wireless Communications (SPAWC)*, Stockholm, Sweden, June 28 - July 1, 2015.
- “Minimizing the Routing Delay in Cognitive Radios Using Potential Fields,” (with Jan Oksanen, Brett Kaufman and Visa Koivunen). *Proceedings of the 16th IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Stockholm, Sweden, June 28 - July 1, 2015.
- “Joint Source-Channel Secrecy Using Hybrid Coding,” (with Eva C. Song and Paul Cuff). *Proceedings of the 2015 IEEE International Symposium on Information Theory*, Hong Kong, June 14 - 19, 2015.
- “How to Use Independent Secret Keys for Secure Broadcasting of Common Messages,” (with Rafael F. Schaefer and Ashish Khisti). *Proceedings of the 2015 IEEE International Symposium on Information Theory*, Hong Kong, June 14 - 19, 2015.
- “Secrecy Degrees of Freedom of Wireless X Networks Using Artificial Noise Alignment,” (with Zhao Wang, Ming Xiao and Mikael Skoglund). *Proceedings of the 2015 IEEE International Symposium on Information Theory*, Hong Kong, June 14 - 19, 2015.
- “On Channel Coding with Feedback in the Moderate Deviations Regime,” (with Yücel Altug and Sergio Verdú). *Proceedings of the 2015 IEEE International Symposium on Information Theory*, Hong Kong, June 14 - 19, 2015.
- “On MMSE Properties of ‘Good’ and ‘Bad’ Codes for the Gaussian Broadcast Channel,” (with Ronit Bustin, Rafael F. Schaefer and Shlomo Shamai). *Proceedings of the 2015 IEEE International Symposium on Information Theory*, Hong Kong, June 14 - 19, 2015.
- “Fast Inverse Nonlinear Fourier Transform for Generating Multi-Solitons in Optical Fiber,” (with Sander Wahls). *Proceedings of the 2015 IEEE International Symposium on Information Theory*, Hong Kong, June 14 - 19, 2015.
- “Multi-user Relay Networks With Massive MIMO,” (with Gayan Amarasureiya). *Proceedings of the 2015 IEEE Conference on Communications*, London, UK, June 8 - 12, 2015.
- “Cluster Formation in Cloud-Radio Access Networks: Performance Analysis and Algorithms Design,” (Zhongyuan Zhao, Mugen Peng, Zhiguo Ding and Chonggang Wang). *Proceedings of the 2015 IEEE Conference on Communications*, London, UK, June 8 - 12, 2015.
- “Smart Meter Privacy with an Energy Harvesting Device and Instantaneous Power Constraints,” (with Giulio Giaconi and Deniz Gndz). *Proceedings of the 2015 IEEE Conference on Communications*, London, UK, June 8 - 12, 2015.
- “Outage Performance of Uplink Two-tier Networks Under Backhaul Constraint,” (with Shirin Jalali and Zolfa Zeinalpour-Yazdi). *Proceedings of the 2015 IEEE Conference on Communications*, London, UK, June 8 - 12, 2015.
- “On the Continuity of the Secrecy Capacity of Wiretap Channels Under Channel Uncertainty,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the 2015 IEEE Conference on Communications*, London, UK, June 8 - 12, 2015.
- “Secure Mobile Crowdsensing Game,” (with Liang Xiao, Jinliang Liu and Qiangda Li). *Proceedings of the 2015 IEEE Conference on Communications*, London, UK, June 8 - 12, 2015.
- “Impact of Channel Aging in Multi-Way Relay Networks With Massive MIMO,” (with Gayan Amarasureiya). *Proceedings of the 2015 IEEE Conference on Communications*, London, UK, June 8 - 12, 2015.
- “An H_∞ Design for Dynamic Pricing in the Smart Grid,” (with Wei-Yu Chiu and Hongjian Sun). *Proceedings of the 10th Asian Control Conference*, Sabah, Malaysia, May 31 - June 3, 2015.
- “Mobile Data Trading: A Behavioral Economics Perspective,” (with Junlin Yu, Man Hon Cheung and Jianwei Huang). *Proceedings of the 13th International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt15)*, Mumbai, India, May 25 - 29, 2015.
- “Capacity Region Continuity of the Compound Broadcast Channel with Confidential Messages,” (with Andrea Grigorescu, Holger Boche and Rafael F. Schaefer). *Proceedings of the 2015 IEEE Information Theory Workshop*, Jerusalem, Israel, April 26 - May 1, 2015.

- “On MMSE Properties of Optimal Codes for the Gaussian Wiretap Channel,” (with Ronit Bustin, Rafael F. Schaefer and Shlomo Shamai). *Proceedings of the 2015 IEEE Information Theory Workshop*, Jerusalem, Israel, April 26 - May 1, 2015.
- “Secrecy Degrees of Freedom of the Two-user MISO Broadcast Channel with Mixed CSIT,” (with Zhao Wang and Mikael Skoglund). *Proceedings of the 2015 IEEE Information Theory Workshop*, Jerusalem, Israel, April 26 - May 1, 2015.
- “On the Design of Relay-Assisted Primary-Secondary Networks,” (with Ahmed El Shafie, Ahmed Sultan and Tamer Khattab). *Proceedings of the IEEE Wireless Communications and Networking Conference*, New Orleans, LA, March 9 - 12, 2015.
- *“Secure Broadcasting of a Common Message with Independent Secret Keys,” (with Rafael F. Schaefer and Ashish Khisti). Presented at the *Information Theory and Applications Workshop*, University of California, San Diego, La Jolla, CA, February 1 - 6, 2015.
- “Universal Compressed Sensing of Markov Sources,” (with Shirin Jalali). Presented at the *Information Theory and Applications Workshop*, University of California, San Diego, La Jolla, CA, February 1 - 6, 2015.
- “Nonparametric Detection of Anomalous Structures Via Kernel Mean Embedding,” (with Shaofeng Zou and Yingbin Liang). Presented at the *Information Theory and Applications Workshop*, University of California, San Diego, La Jolla, CA, February 1 - 6, 2015.
- “The Likelihood Encoder with Applications to Lossy Compression and Secrecy,” (with Eva Song and Paul Cuff). Presented at the *Information Theory and Applications Workshop*, University of California, San Diego, La Jolla, CA, February 1 - 6, 2015.
- *“Privacy in the Smart Grid: Information, Control and Games.” Presented at the *3rd Workshop on Cognition and Control in Complex Systems*, University of Florida, Gainesville, FL, January 16 - 17, 2015.
- “On the Security of Cooperative Single Carrier Systems,” (with Lifeng Wang, Kyeong Jin Kim, Trung Q. Duong and Maged ElKashlan). *Proceedings of the 2014 IEEE Global Communications Conference*, Austin, TX, December 8 - 12, 2014.
- “Distributed Bayesian Hybrid Power State Estimation with PMU Synchronization Errors,” (with Jian Du, Shaodan Ma and Yik-Chung Wu). *Proceedings of the 2014 IEEE Global Communications Conference*, Austin, TX, December 8 - 12, 2014.
- “Feasibility of Using Discriminate Pricing Schemes for Energy Trading in Smart Grid,” (with Wayes Tushar, Chau Yue, Bo Chai and David B. Smith). *Proceedings of the 2014 IEEE Global Communications Conference*, Austin, TX, December 8 - 12, 2014.
- “Optimal Power Allocation in Block Fading Gaussian Channels with Causal CSI and Secrecy Constraints,” (with Arsenia Chorti and Katerina Papadaki). *Proceedings of the 2014 IEEE Global Communications Conference*, Austin, TX, December 8 - 12, 2014.
- “Prospect Theoretic Analysis of Anti-jamming Communications in Cognitive Radio Networks,” (with Liang Xiao, Jinliang Liu, Yan Li and Narayan B. Mandayam). *Proceedings of the 2014 IEEE Global Communications Conference*, Austin, TX, December 8 - 12, 2014.
- “Energy Harvesting for Self-sustainable OFDMA Communications,” (Marco Maso, Subhash Lakshminarayana and Tony Q. S. Quek). *Proceedings of the 2014 IEEE Global Communications Conference*, Austin, TX, December 8 - 12, 2014.
- “Learning Multidimensional Fourier Series With Tensor Trains,” (with Sander Wahls, Visa Koivunen and Michel Verhaegen). *Proceedings of the IEEE GlobalSIP Symposium on Information Processing for Big Data*, Atlanta, GA, December 3 - 5, 2014.
- *“From Social Trust Assisted Reciprocity (STAR) to Utility-Optimal Crowdsensing in Mobile Networks,” (with Xiaowen Gong and Junshan Zhang). *Proceedings of the IEEE GlobalSIP Symposium on Network Theory*, Atlanta, GA, December 3 - 5, 2014.
- *“Equilibria in Data Injection Attacks,” (with Iñaki Esnaola and Samir M. Perlaza). *Proceedings of the IEEE GlobalSIP Symposium on Network Theory*, Atlanta, GA, December 3 - 5, 2014.

- “Worst Additive Noise: An Information-Estimation View,” (with Ronit Bustin and Shlomo Shamai). *Proceedings of the 2014 IEEE 28th Convention of Electrical and Electronics Engineers in Israel*, Eilat, Israel, December 3 - 5, 2014.
- *“User Scheduling in Wireless Information and Power Transfer Networks,” (with Zhiguo Ding). *Proceedings of the 14th IEEE International Conference on Communication Systems*, Macau, China, November 19 - 21, 2014.
- *“Capturing User Behavior in the Smart Grid: Prospect Theory Meets Energy Management,” (with Walid Saad and Narayan Mandayam). Presented at the *2014 INFORMS Annual Meeting*, San Francisco, CA, November 9 - 12, 2014.
- “Risk-Aware Energy Procurement with Renewable Energy and Storage,” (with Subhash Lakshminarayana, Lei Yang, Tony Q.S. Quek and Junshun Zhang). *Proceedings of the IEEE International Conference on Smart Grid Communications*, Venice, Italy, November 3 - 6, 2014.
- *“Robust Transmission over Wiretap Channels with Secret Keys,” (with Rafael Schaefer). *Proceedings of the 47th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 2 - 5, 2014.
- *“Dynamic Joint Outage Identification and State Estimation in Power Systems,” (with Yue Zhao, Jianshu Chen and Andrea Goldsmith). *Proceedings of the 47th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 2 - 5, 2014.
- *“Line Outage Detection in Power Transmission Networks Via Message Passing Algorithms,” (with Jianshu Chen, Yue Zhao and Andrea Goldsmith). *Proceedings of the 47th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 2 - 5, 2014.
- *“On Secure Communication over Multiple Access Wiretap Channels under Channel Uncertainty,” (with Rafael F. Schaefer). *Proceedings of the IEEE Conference on Communications and Network Security: Workshop on Physical-layer Methods for Wireless Security*, San Francisco, CA, October 29, 2014.
- “A Rate-Distortion Based Secrecy System with Side Information at Decoders,” (with Chen Song and Paul Cuff). *Proceedings of the 52nd Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, October 1 - 3, 2014.
- *“Unsupervised Nonparametric Anomaly Detection: A Kernel Method,” (with Shaofeng Zou and Yingbin Liang). *Proceedings of the 52nd Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, October 1 - 3, 2014.
- “A Kernel-Based Nonparametric Test for Anomaly Detection over Line Networks,” (with Shaofeng Zou and Yingbin Liang). *Proceedings of the 2014 IEEE International Workshop on Machine Learning for Signal Processing*, Reims, France, September 21 - 24, 2014.
- “Multi-Way Amplify-and-Forward Relay Networks With Massive MIMO,” (with Gayan Amarasuriya). *Proceedings of the 25th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications*, Washington, DC, September 2 - 5, 2014.
- “Energy-Capacity Trade-off Bounds of Cellular Networks in the Wideband Regime,” (with Jean-Marie Gorce, Dimitris Tsilimantos and Paul Ferrand). *Proceedings of the 25th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications*, Washington, DC, September 2 - 5, 2014.
- *“A Full Cooperative Diversity Beamforming Scheme in Two-way Amplify-and-Forward Relay Systems,” (with Zhongyuan Zhao, Zhiguo Ding and Mugen Peng). *Proceedings of the 22nd European Signal Processing Conference*, Lisbon, Portugal, September 1 - 5, 2014.
- “Distributed Reduced-Rank Estimation Based on Joint Iterative Optimization in Sensor Networks,” (with Songcen Xu and Rodrigo de Lamare). *Proceedings of the 22nd European Signal Processing Conference*, Lisbon, Portugal, September 1 - 5, 2014.
- *“Inverse Nonlinear Fourier Transforms Via Interpolation: The Ablowitz-Ladik Case,” (with Sander Wahls). *Proceedings of the 21st International Symposium on Mathematical Theory of Networks and Systems*, Groningen, The Netherlands July 7 - 11, 2014.
- “The Effect of Maximal Rate Codes on the Interfering Message Rate,” (with Ronit Bustin and Shlomo Shamai). *Proceedings of the 2014 IEEE International Symposium on Information Theory*, Honolulu, HI, June 29 - July 4, 2014.

- “Opportunistic Detection Rules,” (with Wenyi Zhang and George Moustakides). *Proceedings of the 2014 IEEE International Symposium on Information Theory*, Honolulu, HI, June 29 - July 4, 2014.
- “The Likelihood Encoder for Lossy Source Compression,” (with Eva C. Song and Paul Cuff). *Proceedings of the 2014 IEEE International Symposium on Information Theory*, Honolulu, HI, June 29 - July 4, 2014.
- “On Arbitrarily Varying Wiretap Channels for Different Classes of Secrecy Measures,” (with Holger Boche and Rafael F. Schaefer). *Proceedings of the 2014 IEEE International Symposium on Information Theory*, Honolulu, HI, June 29 - July 4, 2014.
- “Symmetric Decentralized Interference Channels with Noisy Feedback,” (with Samir M. Perlaza and Ravi Tandon). *Proceedings of the 2014 IEEE International Symposium on Information Theory*, Honolulu, HI, June 29 - July 4, 2014.
- “Robust Iteratively Reweighted LASSO for Sparse Tensor Factorizations,” (with Hyon-Jung Kim, Esa Ollila and Visa Koivunen). *Proceedings of the 2014 IEEE Workshop on Statistical Signal Processing*, Jupiters, Gold Coast, Australia, June 29 - July 2, 2014.
- “Kernel-Based Nonparametric Anomaly Detection,” (with Shaofeng Zou, Yingbin Liang and Xinghua Shi). *Proceedings of the 15th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Toronto, ON, Canada, June 22 - 25, 2014.
- “Impact of Channel State Information on Wireless Energy Harvesting Cooperative Networks with Spatially Random Relays,” (with Zhiguo Ding, Ioannis Krikidis and Bayan Sharif). *Proceedings of the IEEE International Conference on Communications*, Sydney, Australia, June 10 - 14, 2014.
- *“Secrecy Capacity of Heterogeneous Distributed Storage Systems,” (with Toni Ernvall Salim El Rouayheb and Camilla Hollanti). *Proceedings of the 6th International Symposium on Communications, Control, and Signal Processing*, Athens, Greece, May 21 - 23, 2014.
- *“Decentralized Interference Channels with Noisy Feedback Possess Pareto Optimal Nash Equilibria,” (with Samir Perlaza and Ravi Tandon). *Proceedings of the 6th International Symposium on Communications, Control, and Signal Processing*, Athens, Greece, May 21 - 23, 2014.
- *“Finite-Horizon Quickest Search in Correlated High-Dimensional Data,” (with Saeid Balaneshin and Ali Tajer). *Proceedings of the 6th International Symposium on Communications, Control, and Signal Processing*, Athens, Greece, May 21 - 23, 2014.
- “Energy Management for A User Interactive Smart Community: A Stackelberg Game Approach,” (with Wayes Tushar, Bo Chai, Chau Yuen and David B. Smith). *Proceedings of the 2014 IEEE Innovative Smart Grid Technologies Conference - Asia*, Kuala Lumpur, Malaysia, May 20 - 23, 2014.
- *“Smart Grid: The Role of the Information Sciences.” Presented at the *National Academy of Engineering Regional Meeting, Symposium on Smart Grid Technology Potential and Challenges*, Illinois Institute of Technology, Chicago, IL, May 14, 2014.
- “Integrating Energy Storage into the Smart Grid: A Prospect Theoretic Approach,” (with Yunpeng Wang, Walid Saad and Narayan Mandayam). *Proceedings of the 2014 IEEE International Conference on Acoustics, Speech and Signal Processing*, Florence, Italy, May 4 - 9, 2014.
- “Combining Cooperation and Storage for the Integration of Renewable Energy in Smart Grids,” (with Subhash Lakshminarayana and Tony Q.S. Quek). *Proceedings of the 3rd IEEE INFOCOM Workshop on Communications and Control for Smart Energy Systems*, Toronto, Canada, April 27 - May 2, 2014.
- “Optimal Privacy-Preserving Energy Management for Smart Meters,” (with Lei Yang, Xu Chen and Junshan Zhang). *Proceedings of the 2014 IEEE Conference on Computer Communications (INFOCOM)*, Toronto, ON, April 27 - May 2, 2014.
- “Protocol Design and Stability Analysis of Cooperative Cognitive Radio Users,” (with Ahmed El Shafie and Tamer Khattab). *Proceedings of the 2014 IEEE Wireless Communications and Networking Conference*, Istanbul, Turkey, April 6 - 9, 2014.
- “Fast Nonlinear Fourier Transforms,” (with Sander Wahls). Presented at the *2nd Princeton Workshop on Classical, Semi-classical and Quantum Noise*, Princeton, NJ, March 21 - 23, 2014.

- *“Distributed Reinforcement Learning in Multi-agent Networks,” (with Soumya Kar and José M. F. Moura). *Proceedings of the Fifth IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing*, Saint Martin, December 15 - 18, 2013.
- *“Adaptive Block Sampling for Spectrum Sensing,” (with Ali Tajer). *Proceedings of the Fifth IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing*, Saint Martin, December 15 - 18, 2013.
- *“Dynamic Topology Adaptation for Distributed Estimation in Smart Grids,” (with Songcen Xu and Rodrigo de Lamare). *Proceedings of the Fifth IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing*, Saint Martin, December 15 - 18, 2013.
- “Fundamental Limits of Cyber-Physical Security in Smart Power Grids,” (with Yue Zhao and Andrea Goldsmith). *Proceedings of the 52nd IEEE Conference on Decision and Control*, Florence, Italy, December 10 - 13, 2013.
- “Optimal Joint Detection and Estimation in Linear Models,” (with Jianshu Chen, Yue Zhao and Andrea Goldsmith). *Proceedings of the 52nd IEEE Conference on Decision and Control*, Florence, Italy, December 10 - 13, 2013.
- “A Differential Scheme for Spatial Modulation,” (with Yuyang Bian, Miaowen Wen, Xiang Cheng and Bingli Jiao). *Proceedings of the 2013 IEEE Global Communications Conference*, Atlanta, GA, December 9 - 13, 2013.
- “A Satisfaction Game for Heating, Ventilation and Air Conditioning Control of Smart Buildings,” (with Najmeh Forouzandehmehr, Samir M. Perlaza and Zhu Han). *Proceedings of the 2013 IEEE Global Communications Conference*, Atlanta, GA, December 9 - 13, 2013.
- *“Wireless Network Formation Games with Physical Layer Security Considerations,” (with Walid Saad). Presented at the *Workshop on Trusted Communications with Physical Layer Security*, in conjunction with the *2013 IEEE Global Communications Conference*, Atlanta, GA, December 9 - 13, 2013.
- *“Competitive Privacy.” Presented at the *2nd Rutgers Applied Probability Conference*, Piscataway, NJ, December 6 - 7, 2013.
- *“Recursive Nonlinear Least Squares: Asymptotically Efficient Distributed Strategies,” (with Soumya Kar and José Moura). *Proceedings of the 1st IEEE Global Conference on Signal and Information Processing*, Austin, TX, December 3 - 5, 2013.
- *“Compressive Anomaly Detection in Large Networks,” (with Xiao Li and Anna Scaglione). *Proceedings of the 1st IEEE Global Conference on Signal and Information Processing*, Austin, TX, December 3 - 5, 2013.
- “Quick Search for Rare Events through Sequential Group Sampling,” (with Ali Tajer). *Proceedings of the 47th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 3 - 6, 2013.
- “Blind Topology Identification for Power Systems,” (with Xiao Li and Anna Scaglione). *Proceedings of the IEEE International Conference on Smart Grid Communications*, Vancouver, BC, October 21 - 24, 2013.
- “The Secrecy Capacity of Block Fading Multiuser Wireless Networks,” (with Arsenia Chorti, Katerina Papadaki and Panagiotis Tsakalides). *Proceedings of the International Conference on Advanced Technologies for Communications 2013*, Ho Chi Minh City, Vietnam, October 16 - 18, 2013. [Recipient of the Best Paper Award]
- *“Risk-aware Scheduling and Real-time Charging for Plug-in Electric Vehicles,” (with Lei Yang and Junshan Zhang). *Proceedings of the INFORMS Annual Meeting 2013*, Minneapolis, MN, October 6 - 9, 2013.
- “Data Secrecy in Distributed Storage Systems under Exact Repair,” (with Sreechakra Goparaju, Salim El Rouayheb and Robert Calderbank). *Proceedings of the 51st Annual Allerton Conference on Communications, Control and Computing*, Monticello, IL, October 2 - 4, 2013.
- “Risky Power Forward Contracts for Wind Aggregation,” (with Yue Zhao, Junjie Qin, Ram Rajagopal and Andrea Goldsmith). *Proceedings of the 51st Annual Allerton Conference on Communications, Control and Computing*, Monticello, IL, October 2 - 4, 2013.

- “The Central Detection Officer Problem: SALSA Detector and Performance Guarantees,” (with Xiao Li and Anna Scaglione). *Proceedings of the 51st Annual Allerton Conference on Communications, Control and Computing*, Monticello, IL, October 2 - 4, 2013.
- “Fusion of Hyper-spectral Image Segmentation Algorithms Using Consensus Clustering,” (with Mete Ozay, Fatos T. Yarman Vural and Sanjeev R. Kulkarni). *Proceedings of the 2013 IEEE International Conference on Image Processing*, Melbourne, Australia, September 15 - 18, 2013.
- *“Quick Search for Rare Spectrum Opportunities,” (with Ali Tajer). *Proceedings of the 21st European Signal Processing Conference*, Marrakech, Morocco, September 9 - 13, 2013.
- “Reliable Two-Path Successive Relaying,” (with Ertuğrul Başar, Ümit Aygölü and Erdal Panayırçı) *Proceedings of the 24th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, London, UK, September 8 - 11, 2013.
- *“Simultaneous Information and Power Transfer in Wireless Cooperative Networks,” (with Zhiguo Ding, Samir M. Perlaza and Iñaki Esnaola). *Proceedings of the 8th International Conference on Communications and Networking in China (ChinaCom'13)*, Guilin, China, August 14 -16, 2013.
- “Outage Detection in Power Distribution Networks with Optimally-Deployed Power Flow Sensors,” (with Yue Zhao, Raffi Sevlain, Ram Rajagopal and Andrea Goldsmith). *Proceedings of the 2013 IEEE Power and Energy Society General Meeting*, Vancouver, BC, Canada, July 21 - 25, 2013. [Recipient of the Best Paper Award.]
- “Adaptive Modulation in Multi-user Cognitive Radio Networks over Fading Channels,” (with Fotis Foukalas and Tamer Khattab). *Proceedings of the 8th International Conference on Cognitive Radio Oriented Wireless Networks*, Washington, DC, July 8 - 10, 2013.
- “Delay Constrained Secrecy Capacities in OFDMA Wireless Networks with Causal CSI,” (with Arsenia Chorti, Katerina Papadaki and Panagiotis Tsakalides). Presented at the *2013 IEEE International Symposium on Information Theory*, Istanbul, Turkey, July 7 - 12, 2013.
- “Two-user MISO Broadcast Channel: Synergistic Benefits of Alternating CSIT,” (with Ravi Tandon, Sayed Ali Jafar and Shlomo Shamai). *Proceedings of the 2013 IEEE International Symposium on Information Theory*, Istanbul, Turkey, July 7 - 12, 2013.
- “On the Impact of Network-State Knowledge on the Feasibility of Secrecy,” (with Samir M. Perlaza, Arsenia Chorti and Zhu Han). *Proceedings of the 2013 IEEE International Symposium on Information Theory*, Istanbul, Turkey, July 7 - 12, 2013.
- “A Bit of Secrecy for Gaussian Source Compression,” (with Eva Song and Paul Cuff). *Proceedings of the 2013 IEEE International Symposium on Information Theory*, Istanbul, Turkey, July 7 - 12, 2013.
- “Capacity and Security of Heterogeneous Distributed Storage Systems,” (with Toni Ernvall, Salim El Rouayheb and Camilla Hollanti). *Proceedings of the 2013 IEEE International Symposium on Information Theory*, Istanbul, Turkey, July 7 - 12, 2013.
- “A Statistical Physics Approach to the Wiretap Channel,” (with Iñaki Esnaola and Antonia Tulino). *Proceedings of the 2013 IEEE International Symposium on Information Theory*, Istanbul, Turkey, July 7 - 12, 2013.
- *“Outage Capacity and Partial Secrecy for Energy Efficient Physical Layer Security in Gaussian Fading Channels,” (with Ruolin Zhang and Cristina Comaniciu). *Proceedings of the Global Wireless Summit 2013*, Atlantic City, NJ, June 24 - 27, 2013.
- *“On the Tradeoffs between Network State Knowledge and Secrecy,” (with Samir M. Perlaza, Arsenia Chorti and Zhu Han). *Proceedings of the Global Wireless Summit 2013*, Atlantic City, NJ, June 24 - 27, 2013.
- *“MIMO Gaussian Broadcast Channels with Private and Confidential Messages and with Receiver Side Information,” (with Rafael F. Schaefer and Holger Boche). *Proceedings of the 14th IEEE Workshop on Signal Processing Advances in Wireless Communications*, Darmstadt, Germany, June 16 - 19, 2013.
- “An Outer Loop Link Adaptation for BICM-OFDM that Learns,” (with Sander Wahls). *Proceedings of the 14th IEEE Workshop on Signal Processing Advances in Wireless Communications*, Darmstadt, Germany, June 16 - 19, 2013.

- “Prioritizing Consumers in Smart Grid: Energy Management Using Game Theory,” (with Wayes Tushar, Jian A. Zhang, David B. Smith and Sylvie Thiebaux). *Proceedings of the 2013 IEEE International Conference on Communications*, Budapest, Hungary, June 9 - 13, 2013. [Recipient of the Best Paper Award]
- “Data Secrecy in Distributed Storage Systems under Exact Repair,” (with Sreechakra Goparaju, Salim El Rouayheb and Robert Calderbank). *Proceedings of the 2013 IEEE International Symposium on Network Coding*, Calgary, Canada, June 7 - 9, 2013
- “Introducing the Fast Nonlinear Fourier Transform,” (with Sander Wahls). *Proceedings of the 2013 IEEE International Conference on Acoustics, Speech, and Signal Processing*, Vancouver, BC, Canada, May 26 - 31, 2013.
- “Adaptive Link Selection Strategies for Distributed Estimation in Diffusion Wireless Networks,” (with Songcen Xu and Rodrigo C. de Lamare). *Proceedings of the 2013 IEEE International Conference on Acoustics, Speech, and Signal Processing*, Vancouver, BC, Canada, May 26 - 31, 2013.
- “Link Adaptation for BICM-OFDM Through Adaptive Kernel Regression,” (with Sander Wahls). *Proceedings of the 2013 IEEE International Conference on Acoustics, Speech, and Signal Processing*, Vancouver, BC, Canada, May 26 - 31, 2013.
- “An Information Theoretic Framework for Energy Efficient Secrecy,” (with Cristina Comanciu and Ruolin Zhang). *Proceedings of the 2013 IEEE International Conference on Acoustics, Speech, and Signal Processing*, Vancouver, BC, Canada, May 26 - 31, 2013.
- “Fundamental Limits of Network Community Detection: Theory, Algorithms, and Applications,” (with Patrick J. Wolfe, Jabob N. Shapiro, Mung Chiang and Devavrat Shah). *Proceedings of the XXXIII Sunbelt Social Networks Conference of the International Network for Social Network Analysis*, Hamburg, Germany, May 21 - 26, 2013.
- “Why Steiner-tree Type Algorithms Work for Community Detection,” (with Mung Chiang, Henry Lam and Zhenming Liu). *Proceedings of the Sixteenth International Conference on Artificial Intelligence and Statistics*, Scottsdale, AZ, April 29 - May 1, 2013.
- “Steiner Tree Algorithms in Community Detection,” (with Mung Chiang, Henry Lam and Zhenming Liu). Presented at the *Second Cambridge Area Economics and Computation Day*, Cambridge, MA, April 26, 2013
- “Packet Relaying Control in Sensing-based Spectrum Sharing Systems,” (with Fotis Foukalas and Tamer Khatlab). *Proceedings of the IEEE Wireless Communications and Networking Conference*, Shanghai, China, April 7 - 10, 2013.
- “Energy-Efficient Contention-Based Synchronization in Multicarrier Systems with Discrete Powers and Limited Feedback,” (with Giacomo Bacci, Luca Sanguinetti and Marco Luise). *Proceedings of the IEEE Wireless Communications and Networking Conference*, Shanghai, China, April 7 - 10, 2013. [Recipient of the Best Paper Award]
- “Distributed Iterative Time Slot Allocation for Spectrum Sensing Information Sharing in Cognitive Radio Ad Hoc Networks,” (with Jarmo Lundén and Mehul Motani). *Proceedings of the IEEE Wireless Communications and Networking Conference*, Shanghai, China, April 7 - 10, 2013.
- “Relay-mapper Aided Multi-user Lattice Coding for the Multiple-access Relay Channel,” (with Chung-Pi Lee, Shih-Chun Lin and Hsuan-Jung Su). *Proceedings of of the 47th Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 20 - 22, 2013.
- *“Information Theoretic Privacy for Smart Meters,” (with Deniz Gündüz, Jesús Gómez-Vilardebó and Onur Tan). Presented at the *2013 Information Theory and Applications Workshop*, San Diego, CA, February 10 - 15, 2013.
- *“Competitive Privacy: Incentives for Interaction Among Distributed Agents,” (with Lalitha Sankar and Veronica Belmega). Presented at the *2013 Information Theory and Applications Workshop*, San Diego, CA, February 10 - 15, 2013.
- *“Data Security in Heterogeneous Distributed Storage Systems,” (with Salim El Rouayheb, Toni Ernal and Camilla Hollanti). Presented at the *2013 Information Theory and Applications Workshop*, San Diego, CA, February 10 - 15, 2013.

- “An Efficient Energy Curtailment Scheme For Outage Management in Smart Grid,” (with Wayes Tushar, Andrew Zhang, David Smith, Glenn Platt and Salman Durrani). *Proceedings of the IEEE Global Communications Conference*, Anaheim, CA, December 3 - 7, 2012.
- “Orthogonal Frequency Division Multiplexing with Index Modulation,” (with Ertuğrul Başar, Ümit Aygözü and Erdal Panayırçı). *Proceedings of the IEEE Global Communications Conference*, Anaheim, CA, December 3 - 7, 2012.
- “Physical Layer Security in Wireless Centralized Networks with Passive and Active Eavesdroppers,” (with Arsenia Chorti, Samir Perlaza and Zhu Han). *Proceedings of the IEEE Global Communications Conference*, Anaheim, CA, December 3 - 7, 2012.
- *“Privacy-aware Repeated Games in Distributed Agent Networks,” (with Elena Veronica Belmega and Lalitha Sankar). *Proceedings of the 6th International Conference on Network Games, Control and Optimization*, Avignon, France, November 28 - 30, 2012.
- “Distributed Models for Sparse Attack Construction and State Vector Estimation in the Smart Grid,” (with Mete Ozay, İñaki Esnaola, Fatos T. Yarman Vural and Sanjeev R. Kulkarni). *Proceedings of the Third IEEE International Conference on Smart Grid Communications*, Tainan City, Taiwan, November 5 - 8, 2012.
- “Smarter Security in the Smart Grid,” (with Mete Ozay, İñaki Esnaola, Fatos T. Yarman Vural and Sanjeev R. Kulkarni). *Proceedings of the Third IEEE International Conference on Smart Grid Communications*, Tainan City, Taiwan, November 5 - 8, 2012.
- “Demand-Side Energy Storage System Management in Smart Grid,” (with Wei-Yu Chiu and Hongjian Sun). *Proceedings of the Third IEEE International Conference on Smart Grid Communications*, Tainan City, Taiwan, November 5 - 8, 2012.
- “Smart Meter Privacy in the Presence of Energy Harvesting and Storage Devices,” (with Onur Tan and Deniz Gündüz). *Proceedings of the IEEE SmartGridComm 2012 Workshop - Cognitive and Machine-to-Machine Communications and Networking for Smart Grid*, Tainan City, Taiwan, November 5, 2012.
- *“A Sensing Policy Based on Confidence Bounds and a Restless Multi-Armed Bandit Model,” (with Jan Oksanen, Jarmo Lundén and Visa Koivunen). *Proceedings of the 46th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 4 - 7, 2012.
- *“Learning Efficient Satisfaction Equilibrium via Trial and Error in Decentralized Wireless Networks” (with Samir Perlaza and Zhu Han.) *Proceedings of the 46th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 4 - 7, 2012.
- *“Competitive Privacy in the Smart Grid,” (with Lalitha Sankar and Soumya Kar). *Proceedings of the 46th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 4 - 7, 2012.
- “Distributed Transmit Beamforming: Performance Improvement Using a Two-bit Feedback Scheme,” (with Wayes Tushar, David Smith and Walid Saad). *Proceedings of 12th International Symposium on Communications and Information Technologies*, Gold Coast, Australia, October 2 - 5, 2012.
- “Improving the Energy Efficiency of Contention-Based Synchronization of (O)FDMA Networks,” (with Giacomo Bacci, Luca Sanguinetti and Marco Luise). *Proceedings of the 50th Annual Allerton Conference on Communications, Control and Computing*, Monticello, IL, October 1 - 5, 2012.
- “Source-Channel Secrecy with Causal Disclosure,” (with Curt Schieler, Eva Song and Paul Cuff). *Proceedings of the 50th Annual Allerton Conference on Communications, Control and Computing*, Monticello, IL, October 1 - 5, 2012.
- “Cost of Proportional Fairness in Multiuser Networks,” (with Ali Tajer). *Proceedings of the 50th Annual Allerton Conference on Communications, Control and Computing*, Monticello, IL, October 1 - 5, 2012.
- “The Nash Equilibrium Region of the Linear Deterministic Interference Channel with Feedback,” (with Samir M. Perlaza, Ravi Tandon and Zhu Han). *Proceedings of the 50th Annual Allerton Conference on Communications, Control and Computing*, Monticello, IL, October 1 - 5, 2012.
- “On the Capacity Region of the Symmetric Linear Deterministic Interference Channel with Partial Feedback,” (with Sy-Quoc Le, Ravi Tandon and Mehul Motani). *Proceedings of the 50th Annual*

Allerton Conference on Communications, Control and Computing, Monticello, IL, October 1 - 5, 2012.

- “Increasing the Information-Theoretic Secrecy by Cooperative Relaying and Jamming,” (with Ninoslav Marina and Toni Draganov Stojanovski). *Proceedings of the 50th Annual Allerton Conference on Communications, Control and Computing*, Monticello, IL, October 1 - 5, 2012.
- “Convex Optimization for Precoder Design in MIMO Interference Networks,” (with Yue Zhao, Suhas N. Diggavi and Andrea Goldsmith). *Proceedings of the 50th Annual Allerton Conference on Communications, Control and Computing*, Monticello, IL, October 1 - 5, 2012.
- “Hypothesis Testing for Partial Sparse Recovery,” (with Ali Tajer). *Proceedings of the 50th Annual Allerton Conference on Communications, Control and Computing*, Monticello, IL, October 1 - 5, 2012.
- *“On the Physical Layer Security of Backscatter RFID Systems,” (with Walid Saad and Zhu Han). *Proceedings of the Ninth International Symposium on Wireless Communication Systems*, Paris, France, August 28 - 31, 2012.
- *“On Fading Broadcast Channels with Partial Channel State Information at the Transmitter,” (with Ravi Tandon, Mohammad Ali Maddah-Ali, Antonia Tulino and Shlomo Shamai). *Proceedings of the Ninth International Symposium on Wireless Communication Systems*, Paris, France, August 28 - 31, 2012.
- “An Information-theoretic Approach to Privacy,” (with Lalitha Sankar and S. Raj Rajagopalan). *Proceedings of the 6th International Conference on Information Theoretic Security (ICITS)*, Montreal, Canada, August 15 - 17, 2012.
- *“Identifying Online Communities of Interest Using Prior Information,” (with Chris Leberknight, Ali Tajer and Mung Chiang). *Proceedings of the IEEE Statistical Signal Processing Workshop*, Ann Arbor, MI, August 5 - 8, 2012.
- “On PMU Location Selection for Line Outage Detection in Wide-area Transmission Networks,” (with Yue Zhao and Andrea Goldsmith). *Proceedings of the 2012 IEEE Power and Energy Society General Meeting*, San Diego, CA, July 22 - 26, 2012.
- “On the Sum-Capacity of the Linear Deterministic Interference Channel with Partial Feedback,” (with Sy-Quoc Le, Ravi Tandon and Mehul Motani). *Proceedings of the 2012 IEEE International Symposium on Information Theory*, MIT, Cambridge, MA, July 1 - 6, 2012.
- “On X-Channels with Feedback and Delayed CSI,” (with Ravi Tandon, Soheil Mohajer and Shlomo Shamai). *Proceedings of the 2012 IEEE International Symposium on Information Theory*, MIT, Cambridge, MA, July 1 - 6, 2012.
- “Gaussian Multiple Descriptions with Common and Constrained Reconstruction Constraints,” (with Ravi Tandon, Behzad Ahmadi and Osvaldo Simeone). *Proceedings of the 2012 IEEE International Symposium on Information Theory*, MIT, Cambridge, MA, July 1 - 6, 2012.
- “On the Heegard-Berger Problem with Common Reconstruction Constraints,” (with Behzad Ahmadi, Ravi Tandon and Osvaldo Simeone). *Proceedings of the 2012 IEEE International Symposium on Information Theory*, MIT, Cambridge, MA, July 1 - 6, 2012.
- “Generalized Degrees of Freedom of the Symmetric K -User Interference Channel with Feedback,” (with Soheil Mohajer and Ravi Tandon). *Proceedings of the 2012 IEEE International Symposium on Information Theory*, MIT, Cambridge, MA, July 1 - 6, 2012.
- “Mismatched MMSE Estimation of Multivariate Gaussian Sources,” (with Iñaki Esnaola and Antonia Tulino). *Proceedings of the 2012 IEEE International Symposium on Information Theory*, MIT, Cambridge, MA, July 1 - 6, 2012.
- “Capacity for MIMO Gaussian Interference Channels With Generally Strong and Noisy Interference,” (with Xiaohu Shang). *Proceedings of the 2012 IEEE International Symposium on Information Theory*, MIT, Cambridge, MA, July 1 - 6, 2012.
- “Distributed Estimation in Multi-Agent Networks,” (with Lalitha Sankar). *Proceedings of the 2012 IEEE International Symposium on Information Theory*, MIT, Cambridge, MA, July 1 - 6, 2012.

- “Broadcasting over Fading Wiretap Channels,” (with Yingbin Liang, Lifeng Lai and Shlomo Shamai). *Proceedings of the 2012 IEEE International Symposium on Information Theory*, MIT, Cambridge, MA, July 1 - 6, 2012.
- *“Distributed Target Location Tracking in Multiple Widely Separated Radar Architectures,” (with Hana Godrich and Ali Tajer). *Proceedings of the Seventh IEEE Sensor Array and Multichannel Signal Processing Workshop*, Hoboken, NJ, June 17 - 20, 2012.
- *“Power Allocation for CS-based Colocated MIMO Radar Systems,” (with Yao Yu and Athina Petropulu). *Proceedings of the Seventh IEEE Sensor Array and Multichannel Signal Processing Workshop*, Hoboken, NJ, June 17 - 20, 2012.
- “Compressively Autonomous Sensing (CAsE) for Wideband Spectrum Sensing,” (with Hongjian Sun, Arumugam Nallanathany and Jing Jiang). *Proceedings of the IEEE International Conference on Communications*, Ottawa, ON, Canada, June 10 - 15, 2012.
- “Feedback and Delayed CSI Can Be as Good as Perfect CSI,” (with Ravi Tandon, Soheil Mohajer and Shlomo Shamai). *Proceedings of the IEEE International Conference on Communications*, Ottawa, ON, Canada, June 10 - 15, 2012.
- *“Achievability of Efficient Satisfaction Equilibria in Self-Configuring Networks,” (with Françoise Mériaux, Samir M. Perlaza, Samson Lasaulce and Zhu Han). *Proceedings of the 3rd International Conference on Game Theory for Networks (GAMENETS 2012)*, Vancouver, Canada, May 24 - 26, 2012.
- *“Game-Theoretic Techniques for Smart Grid Design,” (with Walid Saad). Presented at the *32nd CNLS Annual Conference: Optimization and Control for Smart Grids*, Santa Fe, NM, May 21 - 25, 2012.
- *“Pricing Mechanisms for Cooperative State Estimation,” (with Elena-Veronica Belmega, Lalitha Sankar and Mérouane Debbah). *Proceedings of the 5th International Symposium on Communications, Control, and Signal Processing*, Rome, Italy, May 2 - 4, 2012.
- “Twitter vs. Printed English: An Information-theoretic Comparison,” (with Emma Glennon and Lalitha Sankar). *Proceedings of the 2011 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Kyoto, Japan, March 25 - 30, 2012.
- *“Estimation Performance and Resource Savings: Tradeoffs in Multiple Radar Systems,” (with Hana Godrich and Athina Petropulu). *Proceedings of the 2011 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Kyoto, Japan, March 25 - 30, 2012.
- “Robust Power Flow Control in Smart Grids with Fluctuating Effects,” (with Wei-Yu Chiu and Hongjian Sun). *Proceedings of the 1st IEEE INFOCOM Workshop on Communications and Control for Sustainable Energy Systems: Green Networking and Smart Grids*, Orlando, FL, March 30, 2012.
- “Cooperative Cognitive Radio Networking Using Quadrature Signaling,” (with Bin Cao, Lin X. Cai, Hao Liang, Jon W. Mark, Qinyu Zhang and Weihua Zhuang). *Proceedings of IEEE INFOCOM 2012 Mini-Conference*, Orlando, FL, March 25 - 30, 2012.
- *“Quick Search for Rare Events,” (with Ali Tajer). Presented at the *Information Theory and Applications Workshop*, San Diego, CA, February 5 - 10, 2012.
- *“Quick Partial Sparse Support Recovery,” (with Ali Tajer). Presented at the *Information Theory and Applications Workshop*, San Diego, CA, February 5 - 10, 2012.
- *“On MIMO Interference and X-Channels with Feedback and Delayed CSI,” (with Soheil Mohajer, Ravi Tandon and Shlomo Shamai). Presented at the *Information Theory and Applications Workshop*, San Diego, CA, February 5 - 10, 2012.
- *“Interference Mitigation Via Feedback,” (with Ravi Tandon and Soheil Mohajer). Presented at the *Information Theory and Applications Workshop*, San Diego, CA, February 5 - 10, 2012.
- *“Improvement of Information-Theoretic Secrecy by Smart Cooperation,” (with Ninoslav Marina and Toni Stojanovski). Presented at the *Information Theory and Applications Workshop*, San Diego, CA, February 5 - 10, 2012.
- *“Recent Results on a Broadcast Approach for Fading Wiretap Channels,” (with Yingbin Liang, Lifeng Lai and Shlomo Shamai). Presented at the *Information Theory and Applications Workshop*, San Diego, CA, February 5 - 10, 2012.

- *“Asymptotic Performance for Distributed Estimation,” (with Soumya Kar and José Moura). Presented at the *Information Theory and Applications Workshop*, San Diego, CA, February 5 - 10, 2012.
- *“Privacy in the Smart Grid: Two New Challenges,” (with Lalitha Sankar and S. Raj Rajagopalan). Presented at the *Information Theory and Applications Workshop*, San Diego, CA, February 5 - 10, 2012.
- *“On Linear Deterministic Interference Channels with Partial Feedback,” (with Sy-Quoc Lee, Ravi Tandon and Mehul Motani). Presented at the *Information Theory and Applications Workshop*, San Diego, CA, February 5 - 10, 2012.
- “Achievable Secrecy Rates in Physical Layer Security Systems with a Helping Interferer,” (with Arsenia Chorti). *Proceedings of the International Conference on Computing, Networking and Communications*, Maui, HI, January 30 - February 2, 2012.
- *“Exploiting Spatial Diversity in Multiagent Reinforcement Learning Based Spectrum Sensing,” (with Jarmo Lundén, Visa Koivunen and Sanjeev R. Kulkarni). *Proceedings of the 4th International Workshop on Computation Advances in Multi-Sensor Adaptive Processing*, San Juan, Puerto Rico, December 13 - 16, 2011.
- “A Distributed Spring Model Algorithm for Sensor Localization using Dimension Expansion and Hyperbolic Tangential Force,” (with Jieqi Yu and Sanjeev R. Kulkarni). *Proceedings of the 4th International Workshop on Computation Advances in Multi-Sensor Adaptive Processing*, San Juan, Puerto Rico, December 13 - 16, 2011.
- “Stationary Point Variational Bayesian Attribute-Distributed Sparse Learning with l_1 Sparsity Constraints,” (with Dmitriy Shutin and Sanjeev R. Kulkarni). *Proceedings of the 4th International Workshop on Computation Advances in Multi-Sensor Adaptive Processing*, San Juan, Puerto Rico, December 13 - 16, 2011.
- “Bandit Problems in Networks: Asymptotically Efficient Distributed Allocation Rules,” (with Soumya Kar and Shuguang Cui). *Proceedings of the 50th IEEE Conference on Decision and Control*, Orlando, FL, December 12 - 15, 2011.
- “Distributed Opportunistic Scheduling for Cooperative Networking,” (with Xiaowen Gong, Chandrashekar Thejaswi P. S. and Junshan Zhang). *Proceedings of the 2011 IEEE Global Communications Conference*, Houston, TX, December 5 - 9, 2011.
- “Rate Improvement of Beamforming Systems via Bi-Directional Use of Spatial Resources,” (with Hyungsik Ju, Xiaohu Shang and Daesik Hong). *Proceedings of the 2011 IEEE Global Communications Conference*, Houston, TX, December 5 - 9, 2011.
- “Constrained Energy-Aware AP Placement with Rate Adaptation in WLAN Mesh Networks,” (with Zhongming Zheng, Lin X. Cai, Mianxiong Dong and Sherman Shen). *Proceedings of the 2011 IEEE Global Communications Conference*, Houston, TX, December 5 - 9, 2011.
- “Adaptive Resource Management in Sustainable Energy Powered Wireless Mesh Networks,” (with Lin X. Cai, Yongkang Liu, Tom H. Luan, Sherman Shen and Jon W. Mark). *Proceedings of the 2011 IEEE Global Communications Conference*, Houston, TX, December 5 - 9, 2011.
- “Robust Distributed Least-Squares Estimation in Sensor Networks with Node Failures,” (with Qing Zhou, Soumya Kar, Lauren Hui and Shuguang Cui). *Proceedings of the 2011 IEEE Global Communications Conference*, Houston, TX, December 5 - 9, 2011.
- “A Novel Wideband Spectrum Sensing System for Distributed Cognitive Radio Networks,” (with Hongjian Sun, Arumugam Nallanathan, Jing Jiang and David I. Laurenson). *Proceedings of the 2011 IEEE Global Communications Conference*, Houston, TX, December 5 - 9, 2011.
- “Discriminatory Lossy Source Coding: Side Information Privacy,” (with Ravi Tandon and Lalitha Sankar). *Proceedings of the 2011 IEEE Global Communications Conference*, Houston, TX, December 5 - 9, 2011. [Recipient of the Best Paper Award]
- “Eavesdropping and Jamming in Next-Generation Wireless Networks: A Game Theoretic Approach,” (with Quanyan Zhu, Walid Saad, Zhu Han and Tamer Başar). *Proceedings of the 2011 IEEE Military Communications Conference*, Baltimore, MD, November 7 - 10, 2011.

- *“Cluster Allocation Schemes for Target Tracking in Multiple Radar Architectures,” (with Hana Godrich and Athina Petropulu). *Proceedings of the 45th Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 6 - 9, 2011.
- *“Resource Allocation in Widely Distributed MIMO Radars in Non-ideal Conditions,” (with Tuomas Aittomaki, Hana Godrich and Visa Koivunen). *Proceedings of the 45th Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 6 - 9, 2011.
- *“Faster than Nyquist Interference Assisted Secret Communication for OFDM Systems,” (with Arsenia Chorti). *Proceedings of the 45th Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 6 - 9, 2011.
- *“Joint Decode-and-forward and Jamming for Wireless Physical Layer Security with Destination Assistance,” (with Yupeng Liu and Athina Petropulu). *Proceedings of the 45th Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, November 6 - 9, 2011.
- “Competitive Privacy in the Smart Grid: An Information-theoretic Approach,” (with Lalitha Sankar, Soumya Kar and Ravi Tandon). *Proceedings of the Second IEEE International Conference on Smart Grid Communications*, Brussels, Belgium, October 17 - 20, 2011.
- “Distributed Joint Cyber Attack Detection and State Recovery in Smart Grids,” (with Ali Tajer, Soumya Kar and Shuguang Cui). *Proceedings of the Second IEEE International Conference on Smart Grid Communications*, Brussels, Belgium, October 17 - 20, 2011.
- “Smart Meter Privacy: A Utility-Privacy Framework,” (with S. Raj Rajagopalan, Lalitha Sankar and Soheil Mohajer). *Proceedings of the Second IEEE International Conference on Smart Grid Communications*, Brussels, Belgium, October 17 - 20, 2011.
- “A Noncooperative Game for Double Auction-Based Energy Trading between PHEVs and Distribution Grids,” (with Walid Saad, Zhu Han and Tamer Başar). *Proceedings of the Second IEEE International Conference on Smart Grid Communications*, Brussels, Belgium, October 17 - 20, 2011.
- “On the Feedback Capacity of the K-user Cyclic Interference Channel,” (with Ravi Tandon). *Proceedings of the 49th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 28 - 30, 2011.
- “On the Parallel Relay Wire-tap Network,” (with Soheil Mohajer, Suhas N. Diggavi and Shlomo Shamai). *Proceedings of the 49th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 28 - 30, 2011.
- *“Performance Analysis of Code-Multiplexed Transmitted Reference Ultra-Wideband Receivers,” (with Mehmet Emin Tutay and Sinan Gezici). *Proceedings of the 2011 IEEE International Conference on Ultra Wideband*, Bologna, Italy, September 14 - 16, 2011.
- “Antenna Subset Selection in Distributed Multiple-Radar Architectures: A Knapsack Problem Formulation,” (with Hana Godrich and Athina Petropulu). *Proceedings of the 19th European Signal Processing Conference*, Barcelona, Spain, August 29 - September 2, 2011.
- *“Adaptive Sampling for Sparse Recovery,” (with Ali Tajer). *Proceedings of the Workshop on Information Theoretic Methods in Science and Engineering*, Helsinki, Finland, August 7 - 10, 2011.
- “Coordination Limits in MIMO Networks,” (with Ali Tajer and Xiaodong Wang). *Proceedings of the 2011 IEEE International Symposium on Information Theory*, St. Petersburg, Russia, July 31 - August 5, 2011.
- “Multi-Level Rate-Splitting for Synchronous and Asynchronous Interference Channels,” (with Hideki Yagi). *Proceedings of the 2011 IEEE International Symposium on Information Theory*, St. Petersburg, Russia, July 31 - August 5, 2011.
- “Distributed Detection in Noisy Sensor Networks,” (with Soumya Kar, Ravi Tandon and Shuguang Cui). *Proceedings of the 2011 IEEE International Symposium on Information Theory*, St. Petersburg, Russia, July 31 - August 5, 2011.
- “Partial Group Decoding for Interference Channels,” (with Ali Tajer and Xiaodong Wang). *Proceedings of the 2011 IEEE International Symposium on Information Theory*, St. Petersburg, Russia, July 31 - August 5, 2011.

- “Half-Duplex Relaying Based on Quantize-and-Forward,” (with Sha Yao, Mikael Skoglund and Tùng Kim). *Proceedings of the 2011 IEEE International Symposium on Information Theory*, St. Petersburg, Russia, July 31 - August 5, 2011.
- “Multi-User Privacy: The Gray-Wyner System and Generalized Common Information,” (with Ravi Tandon and Lalitha Sankar). *Proceedings of the 2011 IEEE International Symposium on Information Theory*, St. Petersburg, Russia, July 31 - August 5, 2011.
- “Improved Rate-equivocation Regions for Secure Cooperative Communication,” (with Ninoslav Marina and Hideki Yagi). *Proceedings of the 2011 IEEE International Symposium on Information Theory*, St. Petersburg, Russia, July 31 - August 5, 2011.
- “Cascade Source Coding with Erased Side Information,” (with Ravi Tandon and Soheil Mohajer). *Proceedings of the 2011 IEEE International Symposium on Information Theory*, St. Petersburg, Russia, July 31 - August 5, 2011.
- *“Quickest Search Via Adaptive Sampling,” (with Ali Tajer). *Proceedings of the 3rd International Workshop on Sequential Methodologies*, Palo Alto, CA, June 14 - 16, 2011.
- “Coalitional Game Theory for Cooperative Micro-Grid Distribution Networks,” (with Walid Saad and Zhu Han). Presented at the *Second IEEE Workshop on Smart Grid Communications*, in conjunction with the *2011 IEEE International Conference on Communications*, Kyoto, Japan, June 5, 2011.
- “On the Capacity of Multiple-Access-Z-Interference Channels,” (with Fangfang Zhu, Xiaohu Shang and Biao Chen). *Proceedings of the 2011 IEEE International Conference on Communications*, Kyoto, Japan, June 5 - 9, 2011.
- “Diversity Gain Analysis of Single-Input Multiple-Output WPAN Systems with Best Terminal Selection,” (with Kyeong Jin Kim). *Proceedings of the 2011 IEEE International Conference on Communications*, Kyoto, Japan, June 5 - 9, 2011.
- “SNEED: Enhancing Network Security Services Using Network Coding and Joint Capacity,” (with Salah A. Aly and Nirwan Ansari). *Proceedings of the 2011 IEEE International Conference on Communications*, Kyoto, Japan, June 5 - 9, 2011.
- “Integrating Multiple Perspectives in Engineering Education,” (with Sharad Malik). Presented at the *Symposium on Engineering and Liberal Education*, Union College, Schenectady, NY, June 3 - 4, 2011.
- “A Combinatorial Optimization Framework for Subset Selection in Distributed Multiple-Radar Architectures,” (with Hana Godrich and Athina Petropulu). *Proceedings of the 2011 IEEE International Conference on Acoustics, Speech and Signal Processing*, Prague, Czech Republic, May 22 - 27, 2011.
- “Optimal Power Allocation in Distributed Multiple-Radar Configurations,” (with Hana Godrich and Athina Petropulu). *Proceedings of the 2011 IEEE International Conference on Acoustics, Speech and Signal Processing*, Prague, Czech Republic, May 22 - 27, 2011.
- “On Optimal Precoding in Wireless Multicast Systems,” (with Yiyue Wu, Haipeng Zheng, A. Robert Calderbank and Sanjeev R. Kulkarni). *Proceedings of the 2011 IEEE International Conference on Acoustics, Speech and Signal Processing*, Prague, Czech Republic, May 22 - 27, 2011.
- “A Knapsack Problem Formulation for Relay Selection in Secure Cooperative Wireless Communication,” (with Shuangyu Luo, Hana Godrich and Athina Petropulu). *Proceedings of the 2011 IEEE International Conference on Acoustics, Speech and Signal Processing*, Prague, Czech Republic, May 22 - 27, 2011.
- “Fast Adaptive Variational Sparse Bayesian Learning with Automatic Relevance Determination,” (with Dmitriy Shutin, Thomas Buchgraber and Sanjeev R. Kulkarni). *Proceedings of the 2011 IEEE International Conference on Acoustics, Speech and Signal Processing*, Prague, Czech Republic, May 22 - 27, 2011.
- “A Robust Estimator and Detector of Circularity of Complex Signals,” (with Esa Ollila and Visa Koivunen). *Proceedings of the 2011 IEEE International Conference on Acoustics, Speech and Signal Processing*, Prague, Czech Republic, May 22 - 27, 2011.
- “Convergence Results in Distributed Kalman Filtering,” (with Soumya Kar, Shuguang Cui and José M. F. Moura). *Proceedings of the 2011 IEEE International Conference on Acoustics, Speech and Signal Processing*, Prague, Czech Republic, May 22 - 27, 2011.

- “A Sliding-Window Online Fast Variational Sparse Bayesian Learning Algorithm,” (with Thomas Buchgraber, Dmitriy Shutin and Sanjeev R. Kulkarni). *Proceedings of the 2011 IEEE International Conference on Acoustics, Speech and Signal Processing*, Prague, Czech Republic, May 22 - 27, 2011.
- “Base Station Location Optimization for Minimal Energy Consumption in Wireless Networks,” (with Pablo González-Brevis, Jacek Gondzio, Yijia Fan, John Thompson, Ioannis Krikidis, and Pei-Jung Chung). *Proceedings of the 2nd Green Wireless Communications and Networks Workshop* held in conjunction with the IEEE Vehicular Technology Conference - Spring, Budapest, Hungary, May 15 - 18, 2011.
- “Reinforcement Learning Based Distributed Multiagent Sensing Policy for Cognitive Radio Ad Hoc Networks,” (with Jarmo Lundén, Visa Koivunen and Sanjeev R. Kulkarni). *Proceedings of the 2011 Dynamic Spectrum Access (DySPAN)*, Aachen, Germany, May 3 - 6, 2011.
- *“A Game Theoretic Approach for Multi-hop Power Line Communications,” (with Walid Saad and Zhu Han). *Proceedings of GameNets 2011: International Conference on Game Theory for Networks*, Shanghai, China, April 16 - 20, 2011.
- *“Selfish Random Access: Equilibrium Conditions and Best-response Learning,” (with Hazer Inaltekin and Mung Chiang). *Proceedings of GameNets 2011: International Conference on Game Theory for Networks*, Shanghai, China, April 16 - 20, 2011.
- *“The Sharing-Mart System: Incentivizing Digital Content Trading Using Online Auctions,” (with Christopher Leberknight, Ranjan Pal and Mung Chiang). *Proceedings of GameNets 2011: International Conference on Game Theory for Networks*, Shanghai, China, April 16 - 20, 2011.
- “On the Capacity of Gaussian Broadcast Channels That Receive Interference,” (with Xiaohu Shang). *Proceedings of the 45th Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 23 - 25, 2011.
- “Consensus Clustering: The Filtered Stochastic Best-One-Element-Move Algorithm,” (with Haipeng Zheng and Sanjeev R. Kulkarni). *Proceedings of the 45th Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 23 - 25, 2011.
- “On the Capacity Region of Multiple-Access Relay Channels,” (with Ravi Tandon). *Proceedings of the 45th Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 23 - 25, 2011.
- “Improving Accuracy of Coherent Aggregated Forecasts,” (with Guanchun Wang and Sanjeev Kulkarni). *Proceedings of the 45th Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 23 - 25, 2011.
- *“Complex-valued Signal Processing - Essential Models, Tools and Statistics,” (with Esa Ollila and Visa Koivunen). *Proceedings of the Information Theory and Applications Workshop*, University of California, San Diego, La Jolla, CA, February 6 - 11, 2011.
- *“Generalized Time-Sharing for Asynchronous Interference Channels,” (with Hideki Yagi). Presented at the *Information Theory and Applications Workshop*, University of California, San Diego, La Jolla, CA, February 6 - 11, 2011.
- *“Improved Rate-equivocation Regions for Secure Cooperative Communication,” (with Ninoslav Marina and Hideki Yagi). Presented at the *Information Theory and Applications Workshop*, University of California, San Diego, La Jolla, CA, February 6 - 11, 2011.
- “A Reduced Feedback Precoder for Cooperative Relay Networks,” (with Kyeong Jin Kim, Yijia Fan and Ronald A. Iltis). *Proceedings of the 2010 IEEE Global Communications Conference*, Miami, FL, December 6 - 10, 2010.
- “Joint Channel Estimation and Equalization for OFDM based Broadband Communications in Rapidly Varying Mobile Channels.” (with Habib Senol and Erdal Panayirci). *Proceedings of the 2010 IEEE Workshop on Broadband Wireless Access*, held at the 2010 IEEE Global Communications Conference, Miami, FL, December 6 - 10, 2010.
- *“Iterative Transceiver Design for MIMO AF Relay Networks with Multiple Sources” (with Shaodan Ma, Chengwen Xing, Yijia Fan, Yik-Chung Wu and Tung-Sang Ng). *Proceedings of the 2010 IEEE Military Communications Conference*, San Jose, CA, October 31 - November 3, 2010.

- “Robust Target Estimation in Compressive Sensing Based Colocated MIMO Radar,” (with Yao Yu and Athina Petropulu). *Proceedings of the 2010 IEEE Military Communications Conference*, San Jose, CA, October 31 - November 3, 2010.
- “Power Allocation Schemes for Target Localization in Widely Distributed MIMO Radar Systems,” (with Hana Godrich and Athina Petropulu). *Proceedings of the 2010 IEEE Military Communications Conference*, San Jose, CA, October 31 - November 3, 2010.
- *“Secure Source Coding and Privacy-Utility Tradeoffs in Databases,” (with S. Raj Rajagopalan and Lalitha Sankar). *Proceedings of the Sixth Joint Workshop on Coding and Communications*, Santo Stefano Belbo, Italy, October 17 - 19, 2010.
- *“An Information-Theoretic Approach to Privacy,” (with Lalitha Sankar and Raj Rajagopalan). *Proceedings of the 48th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 29 - October 1, 2010.
- *“Key Agreement over Wireless Fading Channels with an Active Attacker,” (with Lifeng Lai and Yingbin Liang). *Proceedings of the 48th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 29 - October 1, 2010.
- “An Explicit Construction of Concatenated Codes for Multiple Access Channels,” (with Hideki Yagi). *Proceedings of the 48th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 29 - October 1, 2010.
- *“High SNR Secrecy Rates with OFDM Signaling over Fading Channels,” (with Francesco Renna and Nicola Laurenti). *Proceedings of the 21st Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communication*, Istanbul, Turkey, September 26 - 30, 2010.
- “Space-Time Block Coding for Spatial Modulation,” (with Ertuğrul Başar, Ümit Aygözü and Erdal Panayırçı). *Proceedings of the 21st Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communication*, Istanbul, Turkey, September 26 - 30, 2010.
- “A Cross-Validation Approach to Trajectory and Shape Reconstruction for Rigid Bodies,” (with Jieqi Yu, Haipeng Zheng and Sanjeev R. Kulkarni). *Proceedings of the 2010 IEEE International Workshop on Machine Learning for Signal Processing*, Kittilä, Finland, August 29 - September 1, 2010.
- *“Resource Allocation Schemes for Target Localization in Distributed Multiple Radar Architectures,” (with Hana Godrich and Athina Petropulu). *Proceedings of the 2010 European Signal Processing Conference*, Aalborg, Denmark, August 23 - 27, 2010.
- *“Wireless Physical Layer Security,” *Proceedings of the Workshop on New Directions in Communications and Networking*, Tsinghua University, Beijing, China, July 9 - 11, 2010.
- “Attribute-distributed Learning: The Iterative Covariance Optimization Algorithm and Its Applications,” (with Haipeng Zheng and Sanjeev R. Kulkarni). *Proceedings of the 2010 American Control Conference*, Baltimore, MD, June 30 - July 2, 2010.
- “Self-Organized Spectrum Sharing in Large MIMO Multiple-Access Channels,” (with Romain Couillet and Mérouane Debbah). *Proceedings of the 2010 IEEE International Symposium on Information Theory*, Austin, TX, June 13 - 18, 2010.
- “MIMO Gaussian Broadcast Channels with Confidential and Common Messages,” (with Ruoheng Liu, Tie Liu and Shlomo Shamai). *Proceedings of the 2010 IEEE International Symposium on Information Theory*, Austin, TX, June 13 - 18, 2010.
- “Broadcast Channels with Private and Confidential Messages,” (with Ruoheng Liu, Tie Liu and Shlomo Shamai). *Proceedings of the 2010 IEEE International Symposium on Information Theory*, Austin, TX, June 13 - 18, 2010.
- “On the Weighted Sum-Rate Capacity Of Broadcast Channels That Generate Interference,” (with Xiaohu Shang). *Proceedings of the 2010 IEEE International Symposium on Information Theory*, Austin, TX, June 13 - 18, 2010.
- “On Minimax Robust Detection of Stationary Gaussian Signals in White Gaussian Noise,” (with Wenyi Zhang). *Proceedings of the 2010 IEEE International Symposium on Information Theory*, Austin, TX, June 13 - 18, 2010.

- “Variable-Length Coding with Feedback in the Non-Asymptotic Regime,” (with Yury Polyanskiy and Sergio Verdú). *Proceedings of the 2010 IEEE International Symposium on Information Theory*, Austin, TX, June 13 - 18, 2010.
- “Minimum Energy to Send k Bits With and Without Feedback,” (with Yury Polyanskiy and Sergio Verdú). *Proceedings of the 2010 IEEE International Symposium on Information Theory*, Austin, TX, June 13 - 18, 2010.
- “A Theory of Utility and Privacy of Data Sources,” (with Lalitha Sankar and S. Raj Rajagopalan). *Proceedings of the 2010 IEEE International Symposium on Information Theory*, Austin, TX, June 13 - 18, 2010.
- “Performance Analysis of Linear Codes under Maximum Likelihood Decoding at Low Rate,” (with Hideki Yagi). *Proceedings of the 2010 IEEE International Symposium on Information Theory*, Austin, TX, June 13 - 18, 2010.
- “Coset Codes for Multiple Access Channels with Common Information Based on LDPC Codes,” (with Hideki Yagi). *Proceedings of the 2010 IEEE International Symposium on Information Theory*, Austin, TX, June 13 - 18, 2010.
- “Space-Alternating Attribute-Distributed Sparse Learning,” (with Dmitriy Shutin, Haipeng Zheng, Bernard H. Fleury and Sanjeev R. Kulkarni). *Proceedings of the 2nd International Workshop on Cognitive Information Processing*, June 14 - 16, 2010, Elba, Italy.
- *“Cooperative Relaying in Sensor Networks,” (with Deniz Gündüz, Elza Erkip and Andrea Goldsmith). *Proceedings of the 5th International Conference on Cognitive Radio Oriented Wireless Networks and Communications*, Cannes, France, June 9 - 11, 2010.
- “Resource Allocation Schemes for Target Localization in Distributed Multiple Radar Architectures,” (with Hana Godrich and Athina Petropulu). Presented at the *ONR/GTRI Workshop on Target Tracking and Sensor Fusion*, Santa Barbara, CA, May 25 - 26, 2010.
- “Compressive Sensing Based Colocated MIMO Radar,” (with Yao Yu and Athina P. Petropulu). Presented at the *ONR/GTRI Workshop on Target Tracking and Sensor Fusion*, Santa Barbara, CA, May 25 - 26, 2010.
- “Shifted Successive Decode-and-Forward Relaying: Towards the Optimal Diversity-Multiplexing Trade-off for a Four-Node Cooperative Network,” (with Chao Wang, Yijia Fan, John S. Thompson and Mikael Skoglund). *Proceedings of the IEEE International Conference on Communications*, Cape Town, South Africa, May 23 - 27, 2010.
- *“Online Content Trading: Sharing Mart System and Auction Experiments,” (with Hazer Inaltekin, Necati E. Ozgencil, Hao Xu and Mung Chiang). *Proceedings of the First IEEE Workshop on Social Networks* (held in conjunction with the IEEE International Conference on Communications), Cape Town, South Africa, May 23, 2010.
- “Range-Free Localization with the Radical Line,” (with Hongyang Chen, Yiu Tong Chan and Kaoru Sezaki). *Proceedings of the IEEE International Conference on Communications*, Cape Town, South Africa, May 23 - 27, 2010.
- “Superposition-Repetition-Coded Successive Decode-and-Forward Relaying with Limited Destination-Relay Feedback,” (with Chao Wang, Yijia Fan, John S. Thompson and Mikael Skoglund). *Proceedings of the IEEE Wireless Communications and Networking Conference*, Sydney, Australia, April 18 - 21, 2010.
- “Linear Transceiver Design for Amplify-and-Forward MIMO Relay Systems under Channel Uncertainties,” (with Chengwen Xing, Shaodan Ma, Yik-Chung Wu and Tung-Sang Ng). *Proceedings of the IEEE Wireless Communications and Networking Conference*, Sydney, Australia, April 18 - 21, 2010.
- *“Robust EM-Based Detection of BICM-OFDM Transmissions in the Presence of Narrowband Interference,” (with Luca Sanguinetti and Michele Morelli). *Proceedings of European Wireless 2010*, Lucca, Italy, April 12 - 15, 2010.
- *“Physical Layer Secrecy for OFDM Systems,” (with Francesco Renna and Nicola Laurenti). *Proceedings of European Wireless 2010*, Lucca, Italy, April 12 - 15, 2010.
- “Privacy-Security Tradeoffs in Reusable Biometric Security Systems,” (with Lifeng Lai and Siu-Wai Ho). *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*, Dallas, TX, March 14 - 19, 2010.

- “Agent Selection for Regression on Attribute Distributed Data,” (with Haipeng Zheng and Sanjeev R. Kulkarni). *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*, Dallas, TX, March 14 - 19, 2010.
- “Noise Enhanced Detection in the Restricted Bayesian Framework,” (with Suat Bayram and Sinan Gezici). *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*, Dallas, TX, March 14 - 19, 2010.
- “Energy Efficient Lossy Transmission over Sensor Networks with Feedback” (with Aman Jain, Deniz Gündüz, Sanjeev R. Kulkarni and S. Verdú). *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*, Dallas, TX, March 14 - 19, 2010.
- *“Range Estimation for MIMO Step-Frequency Radar with Compressive Sensing,” (with Yao Yu and Athina P. Petropulu). *Proceedings of the 4th International Symposium on Communications, Control and Signal Processing*, Limassol, Cyprus, March 3 - 5, 2010.
- *“Localization Performance of Coherent MIMO Radar Systems Subject to Phase Synchronization Errors,” (with Hana Godrich and Alexander M. Haimovich). *Proceedings of the 4th International Symposium on Communications, Control, and Signal Processing*, Limassol, Cyprus, March 3 - 5, 2010.
- *“MIMO Gaussian Broadcast Channels with Common Messages,” (with Tie Liu, Ruoheng Liu and Shlomo Shamai). *Proceedings of the 2010 Information Theory and Applications Workshop*, La Jolla, CA, January 31 - February 5, 2010.
- *“Information Theoretic Reflections on Constrained Base Station Cooperation in the Uplink,” (with Shlomo Shamai, Osvaldo Simeone, Michael Gastpar, Amos Lapidoth, N. Levy, B. Nazer, Amir Sanderovich, Oren Somekh, Michèle Wigger and Benjamin M. Zaidel). *Proceedings of the 2010 Information Theory and Applications Workshop*, La Jolla, CA, January 31 - February 5, 2010.
- *“Secret-Key Generation for Fading Wireless Channels,” (with Xiaojun Tang, Ruoheng Liu and Predrag Spasojevic). *Proceedings of the 2010 Information Theory and Applications Workshop*, La Jolla, CA, January 31 - February 5, 2010.
- *“Privacy and Utility of Databases: Can Shannon Help Conceal and Reveal Information?” (with Lalitha Sankar and Raj Rajagopalan). *Proceedings of the 2010 Information Theory and Applications Workshop*, La Jolla, CA, January 31 - February 5, 2010.
- “Error Exponents for Linear Codes under Maximum Likelihood Decoding at Low Rates,” (with Hideki Yagi). *Proceedings of the 2010 Information Theory and Applications Workshop*, La Jolla, CA, January 31 - February 5, 2010.
- *“Optimal Power Allocation for Secure Communication over Fading MACs,” (with Ruoheng Liu and Yingbin Liang). *Proceedings of the 2010 Information Theory and Applications Workshop*, La Jolla, CA, January 31 - February 5, 2010.
- *“Energy-Distortion Tradeoff with Multiple Sources and Feedback,” (with Aman Jain, Deniz Gündüz, Sanjeev R. Kulkarni and S. Verdú). *Proceedings of the 2010 Information Theory and Applications Workshop*, La Jolla, CA, January 31 - February 5, 2010.
- *“MIMO Radar Based on Reduced Complexity Compressive Sensing,” (with Yao Yu, Athina P. Petropulu and Thomas P.-Y. Yu). *Proceedings of the IEEE Radio and Wireless Symposium*, New Orleans, LA, January 10 - 14, 2010.
- *“Energy-Distortion Tradeoffs in Multiple-access Channels with Feedback,” (with Aman Jain, Deniz Gündüz, Sanjeev R. Kulkarni and Sergio Verdú). *Proceedings of the 2010 IEEE Information Theory Workshop*, Cairo, Egypt, January 6 - 8, 2010.
- *“Parallel Discrete Memoryless Interference Channels Under Strong Interference: Separability and Capacity Region Results,” (with Jin Xu, Xiaohu Shang and Biao Chen). *Proceedings of the 2010 IEEE Information Theory Workshop*, Cairo, Egypt, January 6 - 8, 2010.
- “Application of LDGM-LDPC Codes to Secrecy Coding for the Binary Symmetric Wiretap Channel,” (with Manik Raina, Ruoheng Liu and Predrag Spasojevic). *Proceedings of the 2010 IEEE Information Theory Workshop*, Cairo, Egypt, January 6 - 8, 2010.
- “Quickest Detection in Coupled Systems,” (with Olympia Hadjiladis and Tobias Schäfer). *Proceedings of the 48th IEEE Conference on Decision and Control*, Shanghai, China, December 16 - 18, 2009.

- *“Outlier Elimination for Robust Ellipse and Ellipsoid Fitting,” (with Jieqi Yu and Sanjeev R. Kulkarni). *Proceedings of the Third International Workshop on Computational Advances in Multi-Sensor Adaptive Processing*, Aruba, December 13 - 16, 2009.
- *“Time Delay Estimation in Cognitive Radio Systems,” (with Fatih Kocak, Hasari Celebi, Sinan Gezici, Khalid A. Qaraqe and Huseyin Arslan). *Proceedings of the Third International Workshop on Computational Advances in Multi-Sensor Adaptive Processing*, Aruba, December 13 - 16, 2009.
- *“An Analysis of Phase Synchronization Mismatch Sensitivity for Coherent MIMO Radar Systems,” (with Hana Godrich and Alexander M. Haimovich). *Proceedings of the Third International Workshop on Computational Advances in Multi-Sensor Adaptive Processing*, Aruba, December 13 - 16, 2009.
- “A Gibbs Sampling Based MAP Detection Algorithm for OFDM Over Rapidly Varying Mobile Radio Channels,” (with Erdal Panayirci and Hakan Dogan). *Proceedings of the 2009 IEEE Global Communications Conference*, Honolulu, HI, November 30 - December 4, 2009.
- “Analog Source Exchange with the Help of a Relay,” (with Tùng Kim). *Proceedings of the 2009 IEEE Global Communications Conference*, Honolulu, HI, November 30 - December 4, 2009.
- “On the Optimality of Beamforming for Multi-User MISO Interference Channels with Single-User Detection,” (with Xiaohu Shang and Biao Chen). *Proceedings of the 2009 IEEE Global Communications Conference*, Honolulu, HI, November 30 - December 4, 2009.
- *“Reduced Complexity Angle-Doppler-Range Estimation for MIMO Radar That Employs Compressive Sensing,” (with Yao Yu and Athina Petropulu). *Proceedings of the 43rd Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 1 - 4, 2009.
- *“MIMO Z-Interference Channels: Capacity Under Strong and Noisy Interference,” (with Xiaohu Shang, Biao Chen and Gerhard Kramer). *Proceedings of the 43rd Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 1 - 4, 2009.
- “The Gaussian Wiretap Channel with Noisy Public Feedback: Breaking the High-SNR Ceiling,” (with Tùng Kim). *Proceedings of the 43rd Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 1 - 4, 2009.
- “Robust Fitting of Ellipses and Spheroids,” (with Jieqi Yu and Sanjeev R. Kulkarni). *Proceedings of the 43rd Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 1 - 4, 2009.
- *“Secure Broadcast over MIMO Wireless Channels,” (with Ruoheng Liu, Tie Liu and Shlomo Shamai). Presented at the *23rd IEEE Annual Computer Communications Workshop*, Lenox, MA, October 18 - 21, 2009.
- *“The Broadcast Approach over Fading Gaussian Wiretap Channels,” (with Yingbin Liang, Lifeng Lai and Shlomo Shamai). *Proceedings of the 2009 IEEE Information Theory Workshop*, Taormina, Sicily, October 11 - 19, 2009.
- “Throughput of Cellular Uplink with Dynamic User Activity and Cooperative Base-Stations,” (with Oren Somekh, Osvaldo Simeone and Shlomo Shamai). *Proceedings of the 2009 IEEE Information Theory Workshop*, Taormina, Sicily, October 11 - 19, 2009.
- “Ergodic Layered Erasure One-Sided Interference Channels,” (with Vaneet Aggarwal, Lalitha Sankar and A. Robert Calderbank). *Proceedings of the 2009 IEEE Information Theory Workshop*, Taormina, Sicily, October 11 - 19, 2009.
- “A Unified Framework for Key Agreement over Wireless Fading Channels,” (with Lifeng Lai). *Proceedings of the 2009 IEEE Information Theory Workshop*, Taormina, Sicily, October 11 - 19, 2009.
- “Distortion Exponent in MIMO Channels with Feedback” (with Deniz Gùndüz and Andrea Goldsmith). *Proceedings of the 2009 IEEE Information Theory Workshop*, Taormina, Sicily, October 11 - 19, 2009.
- “K-User Fading Interference Channels: The Ergodic Very Strong Case,” (with Lalitha Sankar and Jan Vondrack). *Proceedings of the 47th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 30 - October 2, 2009.
- “Secure Relaying: Can Publicly Transferred Keys Increase Degrees of Freedom?” (with Tùng Kim). *Proceedings of the 47th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 30 - October 2, 2009.

- “Limits on The Robustness of MIMO Joint Source-Channel Codes,” (with Mahmoud Taherzadeh). *Proceedings of the 47th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 30 - October 2, 2009.
- *“Fading Cognitive Multiple-Access Channels with Confidential Messages,” (with Ruoheng Liu and Yingbin Liang). *Proceedings of the 47th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 30 - October 2, 2009.
- *“Repeated Auctions with Learning for Spectrum Access in Cognitive Radio Networks,” (with Zhu Han and Rong Zheng). Presented at the *47th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 30 - October 2, 2009.
- “Coding for Multiple Access Channels with Common Information Based on LDPC Codes,” (with Hideki Yagi). *Proceedings of the IEICE Technical Meeting on Information Theory*, Sophia University, Tokyo, Japan, September 29 - 30, 2009.
- *“Radio Resource Management for Green Wireless Networks,” (with Cristina Comanciu and Narayan Mandayam). *Proceedings of the 2009 IEEE 70th Vehicular Technology Conference - Fall*, Anchorage, AK, September 20 - 23, 2009.
- *“Convergence and Tradeoff of Utility-Optimal CSMA,” (with Jiaping Liu, Yung Yi, Alexandre Proutire and Mung Chiang). *Proceedings of the Sixth International Conference on Broadband Communications, Networks and Systems (Broadnets 2009)*, Madrid, Spain, September 14 - 17, 2009.
- “Joint Data Detection and Channel Estimation for OFDM Systems in the Presence of Very High Mobility,” (with Erdal Panayirci and Habib Senol). *Proceedings of the 20th IEEE Personal, Indoor and Mobile Radio Communications Symposium*, Tokyo, Japan, September 13 - 16, 2009.
- “Mobile Element Assisted Cooperative Localization Algorithm for Wireless Sensor Networks,” (with Hongyang Chen, Qingjiang Shi, Pei Huang and Kaoru Sezaki). *Proceedings of the 20th IEEE Personal, Indoor and Mobile Radio Communications Symposium*, Tokyo, Japan, September 13 - 16, 2009. [Recipient of the Best Paper Award]
- “Collaborative Training in Sensor Networks: A Graphical Models Perspective,” (with Haipeng Zheng and Sanjeev R. Kulkarni). *Proceedings of the 2009 IEEE International Workshop on Machine Learning for Signal Processing*, Grenoble, France, September 2 - 4, 2009.
- *“Compressive Sensing for MIMO Radar,” (with Yao Yu and Athina P. Petropulu). Presented at the *ONR Workshop on MIMO Radar Benchmark*, San Diego, CA, July 14, 2009.
- “Cooperative Training for Attribute-distributed Data: Trade-off Between Data Transmission and Performance,” (with Haipeng Zheng and Sanjeev R. Kulkarni). *Proceedings of the Twelfth International Conference on Information Fusion*, Seattle, WA, July 6 - 9, 2009.
- “An MMSE Approach to the Secrecy Capacity of the MIMO Gaussian Wiretap Channel,” (with Ronit Bustin, Ruoheng Liu and Shlomo Shamai). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Optimized Concatenated LDPC Codes for Joint Source-Channel Coding,” (with Maria Fresia and Fernando Pérez-Cruz). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Secret-Key Sharing Based on Layered Broadcast Coding over Fading Channels,” (with Xiaojun Tang, Ruoheng Liu and Predrag Spasojevic). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Joint Source-Channel Coding at the Application Layer for Parallel Gaussian Sources,” (with Ozgun Y. Bursalioglu, Maria Fresia and Giuseppe Caire). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “On Gaussian MIMO BC-MAC Duality with Multiple Transmit Covariance Constraints,” (with Lan Yang, Rui Zhang, Ying-Chang Liang and Yan Xin). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Secrecy Throughput of MANETs with Malicious Nodes,” (with Lei Ying and Yingbin Liang). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.

- “A Vector Generalization of an Entropy-Power Inequality of Costa,” (with Ruoheng Liu, Tie Liu and Shlomo Shamai). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “MIMO Gaussian Broadcast Channels with Confidential Messages,” (with Ruoheng Liu, Tie Liu and Shlomo Shamai). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Identification over Multiple Databases,” (with Deniz Gündüz, Ertem Tuncel and Andrea Goldsmith). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Coset Codes for Compound Multiple Access Channels with Common Messages,” (with Hideki Yagi). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Secrecy Capacity of a Class of Orthogonal Relay Eavesdropper Channels,” (with Vaneet Aggarwal, Lalitha Sankar and A. Robert Calderbank). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Noisy-Interference Sum-Rate Capacity of Parallel Gaussian Interference Channels,” (with Xiaohu Shang, Biao Chen and Gerhard Kramer). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Wiretap Channel Type II with an Active Eavesdropper,” (with Vaneet Agrawal, Lifeng Lai and A. Robert Calderbank). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “The Multi-Way Relay Channel,” (with Deniz Gündüz, Aylin Yener and Andrea Goldsmith). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Dispersion of Gaussian Channels,” (with Yury Polyanskiy and Sergio Verdú). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Dispersion of the Gilbert-Elliott Channel,” (with Yury Polyanskiy and Sergio Verdú). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “On the DMT of Bidirectional Relaying with Limited Feedback,” (with Tùng Kim). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “Relaying Simultaneous Multicasts Via Structured Codes,” (with Deniz Gündüz, Osvaldo Simeone, Andrea Goldsmith and Shlomo Shamai). *Proceedings of the 2009 IEEE International Symposium on Information Theory*, Seoul, South Korea, June 28 - July 3, 2009.
- “A Monte-Carlo Implementation of the SAGE Algorithm for Joint Soft Multiuser and Channel Parameter Estimation,” (with Erdal Panayırçı, Alexander Kocian and Marina Ruggieri). *Proceedings of the 10th IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Perugia, Italy, June 21 - 24, 2009.
- “Throughput Scaling of Wireless Networks With Random Connections,” (with Shengshan Cui, Alexander M. Haimovich, Oren Somekh and Shlomo Shamai). *Proceedings of the 2009 IEEE International Conference on Communications*, Dresden, Germany, June 14 - 18, 2009.
- “An Efficient MAP Symbol Detection Algorithm for Highly Mobile Wide-Band Wireless Channels in OFDM Systems,” (with Erdal Panayırçı). *Proceedings of the ICT-Mobile Summit 2009*, Santander, Spain, June 10 - 12, 2009.
- “Multirelay Channel with Non-Ergodic Link Failures,” (with Osvaldo Simeone, Oren Somekh, Elza Erkip and Shlomo Shamai). *Proceedings of the 2009 IEEE Information Theory Workshop*, Volos, Greece, June 10 - 12, 2009.
- “Relaying Simultaneous Multicast Messages,” (with Deniz Gündüz, Osvaldo Simeone, Andrea Goldsmith and Shlomo Shamai). *Proceedings of the 2009 IEEE Information Theory Workshop*, Volos, Greece, June 10 - 12, 2009.

- “An Information Theoretic Framework for Biometric Security Systems,” (with Lifeng Lai and Siu-Wai Ho). *Proceedings of the 3rd IAPR/IEEE International Conference on Biometrics*, Sassari, Italy, June 2 - 5, 2009.
- *“The Impact of Widely Linear Filtering on Energy Efficiency of Multiuser Systems: A Game-theoretic Approach,” (with Stefano Buzzi and Alessio Zappone). *Proceedings of GameNets 2009: International Conference on Game Theory for Networks*, Istanbul, Turkey, May 13 - 15, 2009.
- *“Interference and Secrecy.” Presented at the *2009 IEEE Communication Theory Workshop*, Napa, CA, May 10 - 13, 2009.
- “Distributed Opportunistic Scheduling with Two-Level Channel Probing,” (with Chandrashekar Thejaswi P. S., Simon Pun, and Junshan Zhang). *Proceedings of the 28th IEEE Conference on Computer Communications (INFOCOM 2009)*, Rio de Janeiro, Brazil, April 19 - 25, 2009
- “Compressive Sensing for MIMO Radar,” (with Yao Yu and Athina Petropulu). *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*, Taipei, Taiwan, April 19 - 24, 2009.
- “Amplify-and-Forward Based Cooperation for Secure Wireless Communications,” (with Lun Dong, Zhu Han and Athina Petropulu). *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*, Taipei, Taiwan, April 19 - 24, 2009.
- “OFDM Receiver Design in the Presence of High Mobility Fading Channels,” (with Hakan Dogan and Erdal Panayirci). *Proceedings of the NEWCOM-ACORN Joint Workshop*, Barcelona, Spain, March 30 - April 1, 2009.
- “Transmitter Optimization, Widely-Linear Detection, and Power Control for Energy-Efficient Networks: A Game Theoretic Approach,” (with Stefano Buzzi and Alessio Zappone). *Proceedings of the 2009 IEEE Sarnoff Symposium*, Princeton, NJ, March 30 - April 1, 2009.
- *“Multicasting of Digital Images Over Erasure Broadcast Channels Using Rateless Codes,” (with Maria Fresia, Ozgun Y. Bursalioglu and Giuseppe Caire). *Proceedings of the 2009 IEEE Sarnoff Symposium*, Princeton, NJ, March 30 - April 1, 2009.
- “On Two-Way Relaying with Quantized CSIT,” (with Tùng Kim). *Proceedings of the 43rd Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 18 - 20, 2009.
- “Aggregating Disparate Judgments Using a Coherence Penalty,” (with Arvid Wang and Sanjeev R. Kulkarni). *Proceedings of the 43rd Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 18 - 20, 2009.
- “Joint Source-Channel Coding at the Application Layer,” (with Ozgun Y. Bursalioglu, Maria Fresia and Giuseppe Caire). *Proceedings of the 2009 Data Compression Conference*, Snowbird, UT, March 16 - 18, 2009.
- *“A Broadcast Approach to Robust Communications over Unreliable Multi-relay Networks,” (with Osvaldo Simeone, Oren Somekh, Elza Erkip and Shlomo Shamai). *Proceedings of the 2009 Information Theory and Applications Workshop*, La Jolla, CA, February 8 - 13, 2009.
- *“Joint Source-Channel Coding with Concatenated LDPC Codes,” (with Maria Fresia, Fernando Perez-Cruz and Sergio Verdú). *Proceedings of the 2009 Information Theory and Applications Workshop*, La Jolla, CA, February 8 - 13, 2009.
- *“Secrecy Capacity of a Class of Orthogonal Relay Eavesdropper Channels,” (with Vaneet Agrawal, Lalitha Sankar and A. Robert Calderbank). *Proceedings of the 2009 Information Theory and Applications Workshop*, La Jolla, CA, February 8 - 13, 2009.
- *“Storage and Identification Tradeoff for Multiple Databases,” (with Deniz Gündüz, Erten Tuncel and Andrea Goldsmith). *Proceedings of the 2009 Information Theory and Applications Workshop*, La Jolla, CA, February 8 - 13, 2009.
- “Secrecy Capacity of Gaussian Wiretap Channels with Perfect Feedback,” (with Deniz Gündüz and D. Richard Brown III). *Proceedings of the 2008 International Symposium on Information Theory and Its Applications*, Auckland, New Zealand, December 7 - 10, 2008.

- “Cooperative Multiplexing in Full-Duplex Multi-antenna Relay Networks,” (with Yijia Fan and John S. Thompson). *Proceedings of the 2008 IEEE Global Communications Conference*, New Orleans, LA, November 30 - December 4, 2008.
- “Quickest Detection in Cognitive Radio: A Sequential Change Detection Framework,” (with Lifeng Lai and Yijia Fan). *Proceedings of the 2008 IEEE Global Communications Conference*, New Orleans, LA, November 30 - December 4, 2008.
- “Cognitive Radio: How to Maximally Utilize Spectrum Opportunities in Sequential Sensing,” (with Hai Jiang, Lifeng Lai and Rongfei Fan). *Proceedings of the 2008 IEEE Global Communications Conference*, New Orleans, LA, November 30 - December 4, 2008. [Recipient of the Best Paper Award.]
- “Diversity-Multiplexing Trade-off of MIMO Multi-hop Relay Channels,” (with Deniz Gündüz and Andrea Goldsmith). *Proceedings of the 2008 IEEE Global Communications Conference*, New Orleans, LA, November 30 - December 4, 2008.
- “Threshold Based Relay Selection in Cooperative Wireless Networks,” (with Furuzan Atay Onat, Yijia Fan and Halim Yanikomeroglu). *Proceedings of the 2008 IEEE Global Communications Conference*, New Orleans, LA, November 30 - December 4, 2008.
- *“A Cut-off Phenomenon in Location Based Random Access Games with Imperfect Information,” (with Hazer Inaltekin and Mung Chiang). *Proceedings of 4th International Wireless Internet Conference*, Maui, HI, November 17 - 19, 2008.
- *“Scheduling for Secure Wireless Broadcasting,” (with Yingbin Liang and Lei Ying). *Proceedings of 4th International Wireless Internet Conference*, Maui, HI, November 17 -19, 2008.
- *“Enhancing Uplink Throughput Via Local Base Station Cooperation,” (with Osvaldo Simeone, Oren Somekh and Shlomo Shamai). *Proceedings of the 42nd Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 26 - 29, 2008.
- *“MIMO Two-Way Relay Channels: Capacity and Diversity-Multiplexing Trade-off,” (with Deniz Gündüz and Andrea Goldsmith). *Proceedings of the 42nd Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 26 - 29, 2008.
- *“Cooperative Beamforming for MIMO Radar,” (with Athina Petropulu). *Proceedings of the 42nd Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 26 - 29, 2008.
- *“Three-User Gaussian Multiple Access Channel with Partially Cooperating Encoders,” (with Osvaldo Simeone, Oren Somekh, Gerhard Kramer and Shlomo Shamai). *Proceedings of the 42nd Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 26 - 29, 2008.
- *“Reduced-Feedback Opportunistic Scheduling and Beamforming with Power Allocation for MIMO-OFDMA,” (with Simon Pun, Kyeongjin Kim and Ronald Iltis). *Proceedings of the 2nd Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 26 - 29, 2008.
- *“Threshold Based Distributed Detection that Achieves Full Diversity in Wireless Sensor Networks,” (with Yijia Fan, Furuzan Atay Onat and Halim Yanikomeroglu). *Proceedings of the 42nd Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 26 - 29, 2008.
- *“Medium Access in Cognitive Radio Networks: A Competitive Multi-armed Bandit Framework,” (with Lifeng Lai and Hai Jiang). *Proceedings of the 42nd Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 26 - 29, 2008.
- *“Secrecy Capacity of Wiretap Channels with Noisy Feedback,” (with Deniz Gündüz, D. Richard Brown, III, and Andrea Goldsmith). *Proceedings of the Fifth Joint Workshop on Coding and Communications*, St. Helena, CA, October 26 - 28, 2008.
- *“Security in Wireless Networks: A Cross Layer Perspective.” Presented at the *Symposium on Foundations of Wireless Networks and Beyond*, College Park, MD, October 16 - 17, 2008.
- *“Equivalence of Two Inner Bounds on the Capacity Region for the Broadcast Channel,” (with Yingbin Liang and Gerhard Kramer). *Proceedings of the 46th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 24 - 26, 2008.
- *“The Two-tap Input-erasure Gaussian Channel and Its Application to Cooperative Cellular Communications,” (with Oren Somekh, Osvaldo Simeone and Shlomo Shamai). *Proceedings of the 46th Annual*

Allerton Conference on Communication, Control and Computing, Monticello, IL, September 24 - 26, 2008.

- “Ergodic Two-User Interference Channels: Is Separability Optimal?” (with Lalitha Sankar, Xiaohu Shang and Elza Erkip). *Proceedings of the 46th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 24 - 26, 2008.
- “Uplink Sum-Rate Analysis of a Multi-Cell System With Feedback,” (with Osvaldo Simeone, Oren Somekh, Gerhard Kramer and Shlomo Shamai). *Proceedings of the 46th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 24 - 26, 2008.
- “Privacy-Security Tradeoff in Biometric Security Systems,” (with Lifeng Lai and Siu-Wai Ho). *Proceedings of the 46th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 24 - 26, 2008.
- “Compound Multiple Access Channels with Conferencing Decoders,” (with Osvaldo Simeone, Deniz Gündüz, Shlomo Shamai and Andrea Goldsmith). *Proceedings of the 46th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 24 - 26, 2008.
- “On the Capacity of MIMO Interference Channels,” (with Xiaohu Shang, Biao Chen and Gerhard Kramer). *Proceedings of the 46th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 24 - 26, 2008.
- “Secure Wireless Communication Via Cooperation,” (with Lun Dong, Zhu Han and Athina Petropulu). *Proceedings of the 46th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 24 - 26, 2008.
- “Interference Channels with Correlated Receiver Side Information,” (with Nan Liu, Deniz Gündüz and Andrea J. Goldsmith). *Proceedings of the 46th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 24 - 26, 2008.
- “On the Performance of Selection Relaying,” (with Abdulkareem Adinoyi, Yijia Fan and Halim Yanikomeroglu). *Proceedings of the 2008 IEEE Vehicular Technology Conference*, Calgary, Alberta, September 21 - 24, 2008.
- *“Tight Finite-Blocklength Bounds in Channel Coding,” (with Yury Polyanskiy and Sergio Verdú). *Proceedings of the International Workshop on Advances in Wireless Communications*, Victoria, BC, September 21 - 23, 2008.
- *“Information-theoretic Implications of Constrained Cooperation in Simple Cellular Models,” (with Shlomo Shamai, Osvaldo Simeone, Oren Somekh, Amichai Sanderovich and Benjamin M. Zaidel). *Proceedings of the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, Cannes, France, September 15 - 18, 2008.
- *“Recent Results on Compound Wire-tap Channels,” (with Yingbin Liang, Gerhard Kramer and Shlomo Shamai). *Proceedings of the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, Cannes, France, September 15 - 18, 2008.
- “Energy-Efficient Power Control in Multipath CDMA Channels Via Large System Analysis,” (with Stefano Buzzi and Valeria Massaro). *Proceedings of the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, Cannes, France, September 15 - 18, 2008.
- *“Energy Efficient Communication Using Cooperative Beamforming: A Game Theoretic Analysis,” (with Sharon Betz). *Proceedings of the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, Cannes, France, September 15 - 18, 2008.
- *“Nested Codes for Secure Transmission,” (with Ruoheng Liu, Predrag Spasojevic and Yingbin Liang). *Proceedings of the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, Cannes, France, September 15 - 18, 2008.
- *“Theoretical Limits on Time Delay Estimation for Ultra-Wideband Cognitive Radios,” (with Sinan Gezici, Hasari Celebi and Huseyin Arslan). *Proceedings of the 2008 IEEE International Conference on Ultra-Wideband*, Hannover, Germany, September 10 - 12, 2008.
- “Energy-Efficient Resource Allocation in Multiuser MIMO Systems: A Game-Theoretic Framework,” (with Stefano Buzzi and Daniela Saturnino). *Proceedings of the 16th European Signal Processing Conference*, Lausanne, Switzerland, August 25 - 29, 2008.

- “Optimal Node Density for Two-Dimensional Sensor Arrays,” (with Youngchul Sung and Heejung Yu). *Proceedings of the Fifth IEEE Sensor Array and Multichannel Signal Processing Workshop*, Darmstadt, Germany, July 21 - 23, 2008.
- “Distributed MIMO Systems with Oblivious Antennas,” (with Osvaldo Simeone, Oren Somekh and Shlomo Shamai). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “Multi-Antenna Gaussian Broadcast Channels with Confidential Messages” (with Ruoheng Liu). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “Rateless Coding in MIMO Block Fading Channels,” (with Yijia Fan, Lifeng Lai and Elza Erkip). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “A New Channel Coding Achievability Bound,” (with Yury Polyanskiy and Sergio Verdú). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “On the Asymptotic Behavior of Selfish Transmitters Sharing a Common Channel,” (with Hazer Inaltekin, Mung Chiang and Stephen B. Wicker). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “Sum-Capacity of Ergodic Fading Interference and Compound Multiaccess Channels,” (with Lalitha Sankar and Elza Erkip). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “Capacity Bounds for Peak-Constrained Multiantenna Wideband Channels,” (with Ulrich G. Schuster, Giuseppe Durisi and Helmut Bölcskei). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “Superposition-coded Concurrent Decode-and-Forward Relaying,” (with Chao Wang, Yijia Fan, Ioannis Krikidis and John S. Thompson). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “Lossy Source Transmission over the Relay Channel,” (with Deniz Gündüz, Elza Erkip and Andrea Goldsmith). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “Expected Message Delivery Time for Small World Networks in the Continuum Limit,” (with Hazer Inaltekin and Mung Chiang). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “Cellular Systems with Full-Duplex Compress-and-Forward Relaying and Cooperative Base-Station,” (with Oren Somekh, Osvaldo Simeone and Shlomo Shamai). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “Decentralized Two-Hop Opportunistic Relaying with Limited Channel State Information,” (with Shengshan Cui, Alexander M. Haimovich and Oren Somekh). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “Information, Energy and Density for Ad Hoc Sensor Networks over Correlated Random Fields: Large Deviations Analysis,” (with Youngchul Sung and Heejung Yu). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “Lossless Compression with Security Constraints,” (with Elza Erkip and Deniz Gündüz). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “On the Secure Degrees of Freedom in the K -User Gaussian Interference Channel,” (with Onur Ozan Koyluoglu, Hesham El Gamal and Lifeng Lai). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.
- “The Gaussian Wiretap Channel with a Helping Interferer,” (with Xiaojun Tang, Ruoheng Liu and Predrag Spasojevic). *Proceedings of the 2008 IEEE International Symposium on Information Theory*, Toronto, ON, Canada, July 6 - 11, 2008.

- *“Sequential Change-point Detection for Lévy Processes,” (with Semih Sezer and Savas Dayanik). *Proceedings of the 2008 International Workshop on Applied Probability*, Compiègne, France, July 7 - 10, 2008.
- “A Subspace-Decomposition Approach for Initial Ranging in OFDA Systems,” (with Luca Sanguinetti and Michele Morelli). *Proceedings of the Ninth IEEE Workshop on Signal Processing Advances in Wireless Communications*, Recife, Brazil, July 6 - 9, 2008.
- “Opportunistic Beamforming with One-Bit Feedback,” (with D. Richard Brown, III, and Simon Pun). *Proceedings of the Ninth IEEE Workshop on Signal Processing Advances in Wireless Communications*, Recife, Brazil, July 6 - 9, 2008.
- *“Dimensionally Distributed Learning: Models and Algorithm,” (with Haipeng Zheng and Sanjeev R. Kulkarni). *Proceedings of the Eleventh International Conference on Information Fusion*, Cologne, Germany, June 30 - July 3, 2008.
- *“One Shot Schemes for Decentralized Change Detection,” (with Olympia Hadjiliadis and Hongzhong Zhang). *Proceedings of the Eleventh International Conference on Information Fusion*, Cologne, Germany, June 30 - July 3, 2008.
- *“One Shot Schemes in Decentralized Systems with Discrete and Continuous Time Observations,” (with Olympia Hadjiliadis and Hongzhong Zhang). *Proceedings of the Second International Workshop in Sequential Methodologies*, Troyes, France, June 15 - 17, 2008.
- “Wideband Spectrum Sensing in Cognitive Radio Networks,” (with Zhi Quan, Shuguang Cui and Ali H. Sayed). *Proceedings of the 2008 IEEE International Conference on Communications*, Beijing, May 19 - 23, 2008.
- “Opportunistic Scheduling and Beamforming for MIMO-OFDMA Downlink Systems with Reduced Feedback,” (with Simon Pun and Jin Kim). *Proceedings of the 2008 IEEE International Conference on Communications*, Beijing, May 19 - 23, 2008.
- “Distributed Opportunistic Scheduling for Ad-Hoc Communications Under Noisy Channel Estimation,” (with Dong Zheng, Simon Pun, Weiyan Ge and Junshan Zhang). *Proceedings of the 2008 IEEE International Conference on Communications*, Beijing, May 19 - 23, 2008. [Recipient of the Best Paper Award.]
- “Distributed Opportunistic Scheduling for MIMO Ad Hoc Networks,” (with Simon Pun, Weiyan Ge, Dong Zheng and Junshan Zhang). *Proceedings of the 2008 IEEE International Conference on Communications*, Beijing, May 19 - 23, 2008.
- “An Improved Scheme for Initial Ranging in OFDMA-based Networks,” (with Luca Sanguinetti and Michele Morelli). *Proceedings of the 2008 IEEE International Conference on Communications*, Beijing, May 19 - 23, 2008.
- “SINR Analysis of Opportunistic MIMO-OFDMA Downlink Systems with Linear Combining,” (with Simon Pun and Visa Koivunen). *Proceedings of the 2008 IEEE International Conference on Communications*, Beijing, May 19 - 23, 2008.
- *“Distributed Autocorrelation-Based Sequential Detection of OFDM signals in Cognitive Radios,” (with Sachin Chaudhari and Visa Koivunen). *Proceedings of the Second International Conference on Cognitive Radio Oriented Wireless Networks and Communications*, Singapore, May 15 - 17, 2008.
- *“Physical Layer Security in Wireless Networks: Some Recent Results.” Presented at the *IEEE Communication Theory Workshop*, St. Croix, U. S. Virgin Islands, May 11 -14, 2008.
- *“Cooperative Beamforming,” (with Sharon Betz, Lun Dong and Athina Petropulu). Presented at the *IEEE Communication Theory Workshop*, St. Croix, U. S. Virgin Islands, May 11 - 14, 2008.
- “Secure Lossless Compression with Side Information,” (with Deniz Gündüz and Elza Erkip). *Proceedings of the 2008 IEEE Information Theory Workshop*, Porto, Portugal, May 5 - 9, 2008.
- “Interference-assisted Secret Communication,” (with Xiaojun Tang, Ruoheng Liu and Predrag Spasojevic). *Proceedings of the 2008 IEEE Information Theory Workshop*, Porto, Portugal, May 5 - 9, 2008.
- “Optimal Medium Access Protocols for Cognitive Radio Networks,” (with Lifeng Lai, Hesham El Gamal, and Hai Jiang). *Proceedings of the 6th International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks*, Berlin, Germany, March 31 - April 4, 2008.

- “Large Deviations Analysis for Detection of 2-D Hidden Gaussian Markov Random Fields Using Sensor Networks,” (with Youngchul Sung and Heejung Yu). *Proceedings of the 2008 IEEE International Conference on Acoustics, Speech and Signal Processing*, Las Vegas, NV, March 30 - April 4, 2008.
- “Performance Analysis of a Cross-layer Collaborative Beamforming Approach in the Presence of Channel and Phase Errors,” (with Lun Dong and Athina Petropulu). *Proceedings of the 2008 IEEE International Conference on Acoustics, Speech and Signal Processing*, Las Vegas, NV, March 30 - April 4, 2008.
- “Energy Efficiency in Multi-Hop CDMA Networks: A Game Theoretic Analysis Considering Operating Costs,” (with Sharon Betz). *Proceedings of the 2008 IEEE International Conference on Acoustics, Speech and Signal Processing*, Las Vegas, NV, March 30 - April 4, 2008.
- “Optimal Medium Access Control in Cognitive Radios: A Sequential Design Approach,” (with Lifeng Lang, Hesham El Gamal and Hai Jiang). *Proceedings of the 2008 IEEE International Conference on Acoustics, Speech and Signal Processing*, Las Vegas, NV, March 30 - April 4, 2008.
- “Spatial-Spectral Joint Detection for Wideband Spectrum Sensing in Cognitive Radio Networks,” (with Zhi Quan, Shuguang Cui and Ali H. Sayed). *Proceedings of the 2008 IEEE International Conference on Acoustics, Speech and Signal Processing*, Las Vegas, NV, March 30 - April 4, 2008.
- *“Auction-based Resource Allocation for a Multi-Relay Wireless Network,” (with Jianwei Huang, Zhu Han and Mung Chiang). *Proceedings of the 2008 IEEE International Conference on Acoustics, Speech and Signal Processing*, Las Vegas, NV, March 30 - April 4, 2008.
- “On the Diversity-Multiplexing Tradeoff of Concurrent Decode-and-Forward Relaying,” (with Chao Wang, John S. Thompson and Yijia Fan). *Proceedings of the 2008 IEEE Wireless Communications and Networking Conference*, Las Vegas, NV, March 31 - April 3, 2008.
- “Distributed Source Coding Using Raptor Codes for Hidden Markov Sources,” (with Maria Fresia and Luc Vandendorpe). *Proceedings of the 2008 Data Compression Conference*, Snowbird, UT, March 25 - 27, 2008.
- *“Distributed MIMO in Multi-Cell Wireless Systems Via Finite-Capacity Links,” (with Osvaldo Simeone, Oren Somekh and Shlomo Shamai). *Proceedings of the 3rd International Symposium on Communications, Control and Signal Processing*, St. Julians, Malta, March 12 - 14, 2008.
- “On the Spectrum of Large Random Hermitian Finite-Band Matrices,” (with Oren Somekh, Osvaldo Simeone, Benjamin M. Zaidel and Shlomo Shamai). Presented at the *Third Workshop of the Center for Information Theory and Its Applications*, University of California - San Diego, La Jolla, CA, January 28 - February 1, 2008.
- *“Scheduling of Secure Broadcast,” (with Yingbin Liang and Lei Ying). *Proceedings of the Third Workshop of the Center for Information Theory and Its Applications*, University of California - San Diego, La Jolla, CA, January 28 - February 1, 2008.
- *“Secure Source Compression with Side Information,” (with Deniz Gündüz and Elza Erkip). *Proceedings of the Third Workshop of the Center for Information Theory and Its Applications*, University of California - San Diego, La Jolla, CA, January 28 - February 1, 2008.
- *“Coding Schemes for Confidential Communications,” (with Xiaojun Tang, Ruoheng Liu and Predrag Spasojevic). *Proceedings of the Third Workshop of the Center for Information Theory and Its Applications*, University of California - San Diego, La Jolla, CA, January 28 - February 1, 2008.
- *“Cellular Systems with Multicell Processing and Conferencing Links between Mobile Stations,” (with Osvaldo Simeone, Oren Somekh, Gerhard Kramer and Shlomo Shamai). *Proceedings of the Third Workshop of the Center for Information Theory and Its Applications*, University of California - San Diego, La Jolla, CA, January 28 - February 1, 2008.
- *“Joint Multi-Cell Processing for Downlink Channels with Limited-Capacity Backhaul,” (with Shlomo Shamai, Osvaldo Simeone and Oren Somekh). *Proceedings of the Third Workshop of the Center for Information Theory and Its Applications*, University of California - San Diego, La Jolla, CA, January 28 - February 1, 2008.
- *“A Collaborative Training Algorithm for Multi-Sensor Adaptive Processing,” (with Joel B. Predd and Sanjeev R. Kulkarni). *Proceedings on the Second International Conference on Computational Advances in Multi-Sensor Adaptive Processing*, St. Thomas, U. S. Virgin Islands, December 12 - 14, 2007.

- “Auction-Based Distributed Resource Allocation for Cooperative Transmission in Wireless Networks,” (with Jianwei Huang, Zhu Han and Mung Chiang). *Proceedings of the 2007 IEEE Global Communications Conference*, Washington, DC, November 26 - 30, 2007.
- “Voice Service Support in Mobile Ad Hoc Networks,” (with Hai Jiang, Ping Wang and Weihua Zhuang). *Proceedings of the 2007 IEEE Global Communications Conference*, Washington, DC, November 26 - 30, 2007.
- “Cooperative Beamforming for Wireless Ad Hoc Networks,” (with Lun Dong and Athina Petropulu). *Proceedings of the 2007 IEEE Global Communications Conference*, Washington, DC, November 26 - 30, 2007.
- “Cooperative Beamforming and Power Control,” (with Sharon Betz and Athina Petropulu). *Proceedings of the 41st Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 4 - 7, 2007.
- *“Censoring for Collaborative Spectrum Sensing in Cognitive Radios,” (with Jarmo Lundén, Visa Koivunen and Anu Huttunen). *Proceedings of the 41st Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 4 - 7, 2007.
- *“Multiple-Access Interference.” Presented at the *Middleton Meeting on Classical, Semiclassical, and Quantum Noise*, Princeton, NJ, November 2 - 3, 2007.
- *“Information Theoretic Security in Wireless Networks,” *Proceedings of the 2007 Joint Workshop on Coding and Communications*, Dürnstein, Austria, October 14 - 16, 2007.
- *“Cooperative Multi-Cell Networks: Impact of Limited-Capacity Backhaul and Inter-User Links,” (with Shlomo Shamai, et al.). *Proceedings of the 2007 Joint Workshop on Coding and Communications*, Dürnstein, Austria, October 14 - 16, 2007.
- *“Game Theory and Resource Allocation in Wireless Communications,” (with Giacomo Bacci and Marco Luise). *Proceedings of the 2007 Joint Workshop on Coding and Communications*, Dürnstein, Austria, October 14 - 16, 2007.
- *“Cognitive Interference Channels with Confidential Messages,” (with Yingbin Liang, Anelia Somekh-Baruch, Shlomo Shamai and Sergio Verdú). *Proceedings of the 45th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 26 - 28, 2007.
- *“Compound Wire-tap Channels,” (with Yingbin Liang, Gerhard Kramer and Shlomo Shamai). *Proceedings of the 45th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 26 - 28, 2007.
- “Capacity of Linear Two-hop Mesh Networks with Rate Splitting, Decode-and-Forward Relaying and Cooperation,” (with Osvaldo Simeone, Oren Somekh, Yeshekel Bar-Ness and Shlomo Shamai). *Proceedings of the 45th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 26 - 28, 2007.
- “Secrecy Capacity of the Wiretap Channel with Noisy Feedback,” (with Lifeng Lai and Hesham El Gamal). *Proceedings of the 45th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 26 - 28, 2007.
- “Cooperative Multiplexing in a Half Duplex Relay Network: Performance and Constraints,” (with Yijia Fan and John S. Thompson). *Proceedings of the 45th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 26 - 28, 2007.
- “Authentication over Noisy Channels,” (with Lifeng Lai and Hesham El-Gamal). *Proceedings of the 45th Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, September 26 - 28, 2007.
- “Stochastic Non-Cooperative Games for Energy Efficiency in Wireless Data Networks,” (with Stefano Buzzi and Daniela Saturnino). *Proceedings of the 2007 Tyrrhenian International Workshop on Digital Communication*, Naples, Italy, September 9 -12, 2007.
- “Blind Estimation of Multiple Carrier Frequency Offsets,” (with Yuaning Yu, Athina Petropulu and Visa Koivunen). *Proceedings of the 18th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, Athens, Greece, September 3 - 7, 2007.
- *“Opportunistic Scheduling and Beamforming for MIMO-SDMA Downlink Systems with Linear Combining,” (with Simon Pun and Visa Koivunen). *Proceedings of the 18th Annual IEEE International*

Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Athens, Greece, September 3 - 7, 2007.

- “Secure Nested Codes for Type II Wiretap Channels,” (with Ruoheng Liu, Yingbin Liang and Predrag Spasojevic). *Proceedings of the 2007 IEEE Information Theory Workshop on Frontiers in Coding Theory*, Lake Tahoe, CA, September 2 - 6, 2007.
- “Multiple Access Channels with Generalized Feedback and Confidential Messages,” (with Xiaojun Tang, Ruoheng Liu and Predrag Spasojevic). *Proceedings of the 2007 IEEE Information Theory Workshop on Frontiers in Coding Theory*, Lake Tahoe, CA, September 2 - 6, 2007.
- *“Detection of Two-Sided Alternatives in a Brownian Motion Model,” (with Olympia Hadjiliadis). *Proceedings of the 56th Session of the International Statistical Institute*, Lisbon, Portugal, August 22 - 29, 2007.
- *“Multiple Sensing in Cognitive Radios Based on Multiple Cyclic Frequencies,” (with Jarmo Lundén, Anu Huttunen and Visa Koivunen). *Proceedings of the Second International Conference on Cognitive Radio Oriented Wireless Networks and Communications (CrownCom 2007)*, Orlando, FL, August 1 - 3, 2007.
- “Secrecy Capacity for Semi-deterministic Wire-tap Channels,” (with Jared Grubb, Sriram Vishwanath and Yingbin Liang). *Proceedings of the 2007 IEEE Information Theory Workshop on Information Theory for Wireless Networks*, Bergen, Norway, July 1 - 6, 2007.
- “Performance Comparison of Energy-Efficient Power Control for CDMA and Multiuser UWB Networks,” (with Giacomo Bacci and Marco Luise). *Proceedings of the 16th IST Mobile and Wireless Communications Summit*. Budapest, July 1 - 5, 2007.
- “Power Control Algorithms in CDMA Channels Based on Large System Analysis,” (with Stefano Buzzi). *Proceedings of the 2007 IEEE International Symposium on Information Theory*, Nice, France, June 24 - 29, 2007.
- “Cellular Systems with Full-Duplex Amplify-and-Forward Relaying and Cooperative Base-Station,” (with Oren Somekh, Osvaldo Simeone and Shlomo Shamai). *Proceedings of the 2007 IEEE International Symposium on Information Theory*, Nice, France, June 24 - 29, 2007.
- “Secrecy Capacity Region of Fading Broadcast Channels,” (with Yingbin Liang and Shlomo Shamai). *Proceedings of the 2007 IEEE International Symposium on Information Theory*, Nice, France, June 24 - 29, 2007.
- “Opportunistic Communications in an Orthogonal Multiaccess Relay Channel,” (with Lalitha Sankar, Yingbin Liang and Narayan Mandayam). *Proceedings of the 2007 IEEE International Symposium on Information Theory*, Nice, France, June 24 - 29, 2007.
- “Cooperative Transmission Protocols with High Spectral Efficiency and High Diversity Order Using Multiuser Detection and Network Coding,” (with Zhu Han and Xin Zhang). *Proceedings of the 2007 IEEE International Conference on Communications*, Glasgow, Scotland, June 24 - 28, 2007.
- “Lifetime Improvement of Wireless Sensor Networks by Collaborative Beamforming and Cooperative Transmission,” (with Zhu Han). *Proceedings of the 2007 IEEE International Conference on Communications*, Glasgow, Scotland, June 24 - 28, 2007.
- *“Multiple Antenna Secure Broadcast over Wireless Networks,” (with Ruoheng Liu). *Proceedings of the First International Workshop on Information Theory for Sensor Networks (WITS 2007)*, Santa Fe, NM, June 18 - 20, 2007.
- “Large System Analysis of Game-Theoretic Power Control in UWB Wireless Networks with Rake Receivers,” (with Giacomo Bacci and Marco Luise). *Proceedings of the 8th IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Helsinki, Finland, June 17 - 20, 2007.
- “Blind Identification of Distributed Antenna Systems with Multiple Carrier Frequency Offset,” (with Yuanning Yu and Athina Petropulu). *Proceedings of the 8th IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Helsinki, Finland, June 17 - 20, 2007.
- “Flow-Level Stability of Data Networks with Non Convex and Time-Varying Rate Regions,” (with Jiaping Liu, Alexandre Proutière, Y. Yi and Mung Chiang). *Proceedings of ACM Sigmetrics 2007* -

The International Conference on Measurement and Modeling of Computer Systems, San Diego, CA, June 12 - 17, 2007.

- *“Game-Theoretic Analysis of Energy Efficiency in Multiuser Impulse Radio Systems,” (with Giacomo Bacci and Marco Luise). Presented at the *IEEE Communication Theory Workshop*, Sedona, AZ, May 20 - 23, 2007.
- “Coalition Games with Cooperative Transmission: A Cure for the Curse of Boundary Nodes in Selfish Packet-Forwarding Wireless Networks,” (with Zhu Han). *Proceedings of the 5th International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt07)*, Limassol, Cyprus, April 16 - 20, 2007.
- *“Game-Theoretic Power Control in Impulse Radio UWB Wireless Networks,” (with Giacomo Bacci and Marco Luise). *Proceedings of the 13th European Wireless Conference*, Paris, France, April 1 - 4, 2007.
- “Non-cooperative Games for Spreading Code Optimization, Power Control and Receiver Design in Wireless Data Networks,” (with Stefano Buzzi). *Proceedings of the 13th European Wireless Conference*, Paris, France, April 1 - 4, 2007.
- “A High-Throughput Cross-Layer Scheme for Distributed Wireless Adhoc Networks,” (with Athina P. Petropulu and Lun Dong). *Proceedings of the 41st Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 14 - 16, 2007.
- “Joint Detection and Identification of an Unobservable Change in the Distribution of a Random Sequence,” (with Savas Dayanik and Christian Goulding). *Proceedings of the 41st Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 14 - 16, 2007.
- “Power Control and Receiver Design for Energy-Efficiency in Multipath CDMA Channels with Bandlimited Waveforms,” (with Stefano Buzzi and Valeria Massaro). *Proceedings of the 41st Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 14 - 16, 2007.
- *“Secrecy Capacity Region of Parallel Broadcast Channels,” (with Yingbin Liang and Shlomo Shamai). *Proceedings of the Second Workshop of the Center for Information Theory and Its Applications*, University of California - San Diego, La Jolla, CA, January 29 - February 2, 2007.
- *“A Game Theoretic Approach to Energy-Efficient Modulation in CDMA Networks with Delay Constraints,” (with Farhad Meshkati, Andrea Goldsmith and Stuart C. Schwartz). *Proceedings of the 2007 IEEE Radio and Wireless Symposium*, Long Beach, CA, January 9 - 11, 2007.
- *“Aggregating Forecasts of Probability from Incoherent and Abstaining Experts,” (with Joel B. Predd, Sanjeev R. Kulkarni and Daniel Osherson). *Proceedings of the 2006 INFORMS Annual Meeting*, Pittsburgh, PA, November 5 - 8, 2006.
- “Bayesian Sequential Change Diagnosis: Detection and Identification of a Change in a Random Sequence,” (with Christian L. Goulding and Savas Dayanik). *Proceedings of the 2006 INFORMS Annual Meeting*, Pittsburgh, PA, November 5 - 8, 2006.
- “Power Allocation in Distributed Detection with Wireless Sensor Networks,” (with Xin Zhang and Mung Chiang). *Proceedings of the 2006 IEEE Military Communications Conference*, Washington, DC, October 23 - 25, 2006.
- *“Energy Games in Wireless Networks.” *Proceedings of the Workshop on Games, Teams and Decisions*, University of Illinois, Urbana, IL, September 30, 2006.
- *“Optimal Power Allocation for Distributed Detection in Wireless Sensor Networks,” (with Xin Zhang). *Proceedings of the 44th Annual Allerton Conference on Communication, Control and Computing*, University of Illinois, Monticello, IL, September 27 - 29, 2006.
- “Secure Communication over Fading Channels,” (with Yingbin Liang). *Proceedings of the 44th Annual Allerton Conference on Communication, Control and Computing*, University of Illinois, Monticello, IL, September 27 - 29, 2006.
- “Secrecy Capacity Region of Binary and Generalized Gaussian Multiple Access Channels,” (with Yingbin Liang). *Proceedings of the 44th Annual Allerton Conference on Communication, Control and Computing*, University of Illinois, Monticello, IL, September 27 - 29, 2006.

- *“Optimal and Suboptimal Linear Receivers for Impulse Radio UWB Systems,” (with Sinan Gezici, Hisashi Kobayashi and Andreas F. Molisch). *Proceedings of the 2006 IEEE International Conference on Ultra-Wideband*, Waltham, MA, September 24 - 27, 2006.
- *“Cross-Layer Issues in Wireless Networks.” *Third International Workshop on Mathematical Techniques and Problems in Telecommunications*, Leiria, Portugal, September 4 - 8, 2006.
- *“Finger Selection for UWB Rake Receivers,” (with Sinan Gezici, Mung Chiang and Hisashi Kobayashi). *Proceedings of the 2006 European Signal Processing Conference*, Florence, Italy, September 4 - 8, 2006.
- *“Signal Processing Issues in Wireless Sensor Networks,” *Proceedings of the 2006 European Signal Processing Conference*, Florence, Italy, September 4 - 8, 2006.
- “The Best 2-CUSUM Stopping Rules for Quickest Detection of Two-Sided Alternatives in a Brownian Motion Model,” (with Olympia Hadjiliadis). *Proceedings of the 69th Annual Meeting of the Institute of Mathematical Statistics*, Rio de Janeiro, Brazil, July 30 - August 4, 2006.
- “Generalized Multiple Access Channels with Confidential Messages,” (with Yingbin Liang). *Proceedings of the 2006 IEEE International Symposium on Information Theory*, Seattle, WA, July 9 - 14, 2006.
- “Upper Bounding the Performance of Iterative Decoding on Binary Erasure Channels,” (with Chih-Chun Wang and Sanjeev R. Kulkarni). *Proceedings of the 2006 IEEE International Symposium on Information Theory*, Seattle, WA, July 9 - 14, 2006.
- *“Scalable Algorithms for Aggregating Incoherent Forecasts of Probability,” (with Joel B. Predd, Sanjeev R. Kulkarni and Daniel Osherson). *Proceedings of the Ninth International Conference on Information Fusion*, Florence, Italy, July 10 - 13, 2006.
- *“Energy Efficiency in Multi-hop CDMA Networks: A Game Theoretic Analysis,” (with Sharon Betz). *Proceedings of the Workshop on Multi-Layer Modelling and Design of Multi-Hop Wireless Networks*, Minneapolis, MN, July 12 - 15, 2006.
- *“Distributed Inference in Wireless Sensor Networks: Some Recent Results and Open Issues,” (with Sanjeev R. Kulkarni and Joel B. Predd). *Proceedings of the NSF Workshop on Future Directions for Sensor Network Systems Research*, Boston University, Boston, MA, May 25 - 26, 2006.
- *“Effects of Polarity Randomization in Impulse Radio UWB Systems,” (with Sinan Gezici and Hisashi Kobayashi). *Proceedings of the Workshop on Short-Range UWB Radio Systems*, Santa Monica, CA, April 11 - 12, 2006.
- *“Energy Management in Wireless Networks.” Presented at the *Defense Science Research Council (DSRC)/DARPA Workshop on Energy Efficient Wireless Communications*, Arlington, VA, March 27, 2006
- “Energy-Efficient Power and Rate Control with QoS Constraints: A Game-Theoretic Approach,” (with Farhad Meshkati, Stuart C. Schwartz and Radu Balan). *Proceedings of the IEEE International Wireless Communications and Mobile Computing Conference: Cross-Layer Designs and Protocols Symposium*, Vancouver, Canada, July 3 - 6, 2006.
- “The Impact of Delay on the Diversity, Multiplexing and ARQ Tradeoff,” (with Timothy Holliday and Andrea Goldsmith). *Proceedings of the 2006 IEEE International Conference on Communications*, Istanbul, Turkey, June 11 - 15, 2006.
- “Estimation Diversity with Multiple Heterogeneous Sensors,” (with Robert Cui and Andrea Goldsmith). *Proceedings of the 2006 IEEE International Conference on Communications*, Istanbul, Turkey, June 11 - 15, 2006.
- “Low-Complexity MMSE Combining for Linear Impulse Radio UWB Receivers,” (with Sinan Gezici, Andreas F. Molisch and Hisashi Kobayashi). *Proceedings of the 2006 IEEE International Conference on Communications*, Istanbul, Turkey, June 11 - 15, 2006.
- “Estimation Diversity in Distributed Sensing,” (with Robert Cui, Andrea Goldsmith, et al.). Presented at the *2006 IEEE Communication Theory Workshop*, Dorado, Puerto Rico, May 21 - 24, 2006.
- “Distributed Least-Squares Classification in Wireless Sensor Networks,” (with Joel B. Predd and Sanjeev R. Kulkarni). *Proceedings of the DIMACS/CSNA 2006 Meeting on Network Data Analysis and Data Mining: Applications in Biology, Computer Science, Intrusion Detection, and Other Areas*, Rutgers University, Piscataway, NJ, May 10 - 13, 2006.

- “Aggregating Disparate Forecasts of Probability: A Scalable Approach,” (with Joel B. Predd, Sanjeev R. Kulkarni and Daniel Osherson). *Proceedings of the Risk Analysis for Homeland Defense and Security: Theory and Application*, Los Alamos National Laboratory, Los Alamos, NM, March 20 - 22, 2006.
- “Distributed Kernel Regression: An Algorithm for Training Collaboratively,” (with Joel B. Predd and Sanjeev R. Kulkarni). *Proceedings of the 2006 IEEE Information Theory Workshop*, Punta del Este, Uruguay, March 13 - 17, 2006.
- *“Energy Efficiency and Delay Quality-of-Service in Wireless Networks,” (with Farhad Meshkati and Stuart C. Schwartz). *Proceedings of the Inaugural Workshop of the Center for Information Theory and Its Applications*, University of California - San Diego, La Jolla, CA, February 6 - 10, 2006.
- *“Quickest Detection of a Minimum of Disorder Times,” (with Erhan Bayraktar). *Proceedings of the 44th IEEE Conference on Decision and Control*, Seville, Spain, December 12 - 15, 2005.
- *“Integrating Education, Research, and Outreach: Exemplars from the NSF Distinguished Scholars Program,” (with Alice M. Agogino, Leah H. Jamieson, Gretchen Kalonji, David F. Ollis, Susan E. Powers and Chris Rogers). *Proceedings of the 2005 Frontiers in Education Conference*, Indianapolis, IN, October 19 - 22, 2005.
- “Regression in Sensor Networks: An Algorithm for Training Distributively,” (with Joel B. Predd and Sanjeev R. Kulkarni). *Proceedings of the WICAT Workshop on Cooperative Communications*, Polytechnic University, New York, NY, October 21, 2005.
- *“A Two-Step Time of Arrival Estimation Algorithm for Impulse Radio Ultrawideband Systems,” (with Sinan Gezici, Zafer Shainoglu, Andreas F. Molisch and Hisashi Kobayashi). *Proceedings of the 13th European Signal Processing Conference*, Antalya, Turkey, September 4 - 8, 2005.
- *“Regression in Sensor Networks: Training Distributively with Alternating Projections,” with Joel B. Predd and Sanjeev R. Kulkarni). *Proceedings of the SPIE Conference on Advanced Signal Processing Algorithms, Architectures and Implementations XV*, San Diego, CA, July 31 - August 4, 2005.
- *“Optimal and Suboptimal Detection of Gauss-Markov Signals in Noise: Asymptotic Relative Efficiency,” (with Youngchul Sung and Lang Tong). *Proceedings of the SPIE Conference on Advanced Signal Processing Algorithms, Architectures and Implementations XV*, San Diego, CA, July 31 - August 4, 2005.
- *“Distributed Inference in Wireless Sensor Networks: Some Recent Results,” *Proceedings of the IEEE Statistical Signal Processing Workshop*, Bordeaux, France, July 17 - 20, 2005.
- *“Energy Efficiency in Multiple-Access Wireless Networks: Nash Equilibria in Power Control Games,” *Proceedings of the IMA Workshop on Wireless Communications*, University of Minnesota, Minneapolis, MN, June 27 - July 1, 2005.
- *“Distributed Learning with Limited Communication,” (with Joel B. Predd and Sanjeev R. Kulkarni). *Proceedings of the Thirteenth Yale Workshop on Adaptive and Learning Systems*, New Haven, CT, May 30 - June 1, 2005.
- “Multi-source Change Detection for Compound Poisson Processes,” (with Erhan Bayraktar). *Proceedings of the 43rd Annual Allerton Conference on Communication, Control and Computing*, University of Illinois, Monticello, IL, September 28 - 30, 2005.
- “A Unified Power Control Algorithm for Multiuser Detectors in Large Systems: Convergence and Performance,” (with Farhad Meshkati, Stuart C. Schwartz and Dongning Guo). *Proceedings of the 43rd Annual Allerton Conference on Communication, Control and Computing*, University of Illinois, Monticello, IL, September 28 - 30, 2005.
- “A Genetic Algorithm Based Finger Selection Scheme for UWB MMSE Rake Receivers,” (with Sinan Gezici, Mung Chiang and Hisashi Kobayashi). *Proceedings of the 2005 International Conference on Ultra-Wideband*, Zurich, Switzerland, September 5 - 8, 2005.
- “A Non-Cooperative Power Control Game in Delay-Constrained Wireless Multiple-Access Networks,” (with Farhad Meshkati and Stuart Schwartz). *Proceedings of the 2005 IEEE International Symposium on Information Theory*, Adelaide, Australia, September 4 - 9, 2005.
- “Neyman-Pearson Detection of Gauss-Markov Signals in Noise: Closed-Form Error Exponent and Properties,” (with Youngchul Sung and Lang Tong). *Proceedings of the 2005 IEEE International Symposium on Information Theory*, Adelaide, Australia, September 4 - 9, 2005.

- “Sensor Activation and Scheduling for Field Detection in Large Sensor Arrays,” (with Youngchul Sung and Lang Tong). *Proceedings of the Fourth International Conference on Information Processing in Sensor Networks*, Los Angeles, CA, April 25 - 27, 2005.
- “On the Effects of Phase Estimation Errors on Collaborative Beamforming in Wireless Ad Hoc Networks,” (with Hideki Ochiai, Patrick Mitran and Vahid Tarokh). *Proceedings of the 2005 IEEE International Conference on Acoustics, Speech and Signal Processing*, Philadelphia, PA, March 19 - 23, 2005.
- “A Large Deviations Approach to Sensor Scheduling for Detection of a Correlated Random Field,” (with Youngchul Sung and Lang Tong). *Proceedings of the 2005 IEEE International Conference on Acoustics, Speech and Signal Processing*, Philadelphia, PA, March 19 - 23, 2005.
- “Energy-Efficient Joint Estimation in Sensor Networks: Analog vs. Digital,” (with Shuguang Cui, Jin-Jin Xiao, Andrea J. Goldsmith and Zhi-Quan Luo). *Proceedings of the 2005 IEEE International Conference on Acoustics, Speech and Signal Processing*, Philadelphia, PA, March 19 - 23, 2005.
- “Analysis of Second-Order Statistics Based Semi-Blind Channel Estimation in CDMA Channels,” (with Husheng Li). *Proceedings of the 2005 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 16 - 18, 2005.
- “Impulse Radio Systems with Multiple Types of Ultra-Wideband Pulses,” (with Sinan Gezici, Zafer Sahinoglu and Hisashi Kobayasi). *Proceedings of the 2005 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 16 - 18, 2005.
- “On the Typicality of the Linear Code Among the LDPC Coset Code Ensemble,” (with Chih-Chun Wang and Sanjeev R. Kulkarni). *Proceedings of the 2005 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 16 - 18, 2005.
- “A Non-Cooperative Power Control Game for Multi-Carrier CDMA Systems,” (with Farhad Meshkati, Mung Chiang, Stuart Schwartz and Narayan Mandayam). *Proceedings of the 2005 Wireless Communications and Networking Conference*, New Orleans, LA, March 13 - 17, 2005.
- “Finger Selection Algorithms for MMSE Rake Receivers in Impulse Radio Ultra-Wideband Systems,” (with Sinan Gezici, Mung Chiang and Hisashi Kobayasi). *Proceedings of the 2005 Wireless Communications and Networking Conference*, New Orleans, LA, March 13 - 17, 2005.
- “Power Allocation, Decoding Order and Spectral Efficiency of Successive Interference Cancellation Based Multirate DS-CDMA Systems,” (with Husheng Li). *Proceedings of the 2004 IEEE Global Telecommunications Conference*, Dallas, TX, November 29 - December 3, 2004.
- “Impact of Channel Estimation Error on Multiuser Detection Via the Replica Method,” (with Husheng Li). *Proceedings of the 2004 IEEE Global Telecommunications Conference*, Dallas, TX, November 29 - December 3, 2004.
- “The Capacity and Power Efficiency of OOFSK Signaling over Wideband Fading Channels,” (with Mustafa Gursoy and Sergio Verdú). *Proceedings of the 2004 IEEE Global Telecommunications Conference*, Dallas, TX, November 29 - December 3, 2004.
- *“Collaborative Beamforming in Ad Hoc Networks,” (with Hideki Ochiai, Patrick Mitran and Vahid Tarokh). *Proceedings of the 2004 IEEE Information Theory Workshop*, San Antonio, TX, October 24 - 29, 2004.
- *“Power Control Games in Multiple-Access Data Networks,” (with Farhad Meshkati and Stuart C. Schwartz) *Proceedings of the Third Joint Workshop on Communications and Coding*, Donnini, Italy, October 14 - 17, 2004.
- “On Finite-Dimensional Bounds for LDPC-Like Codes and Iterative Decoding,” (with Chih-Chun Wang and Sanjeev R. Kulkarni). *Proceedings of the 2004 International Symposium on Information Theory and its Applications*, Parma, Italy, October 10 - 13, 2004.
- *“Distributed Learning in Wireless Sensor Networks,” (with Joel B. Predd and Sanjeev R. Kulkarni). *Proceedings of the 42nd Annual Allerton Conference on Communication, Control and Computing*, University of Illinois, Monticello, IL, September 29 - October 1, 2004.
- “Successive Interference Cancellation Based Power Control and Spectral Efficiency for DS-CDMA Systems with Fixed QoS,” (with Husheng Li). *Proceedings of the 42nd Annual Allerton Conference*

on *Communication, Control and Computing*, University of Illinois, Monticello, IL, September 29 - October 1, 2004.

- *“Spectral Efficiency of Equal-rate DS-CDMA Systems with Multiple Transmit Antennas,” (with Husheng Li). *Proceedings of the 2004 IEEE Vehicular Technology Conference - Fall*, Los Angeles, CA, September 26 - 29, 2004.
- “Power Efficiency of Joint Frequency-Phase Modulation in the Low-SNR Regime over Noncoherent Rician Channels,” (with Mustafa Gursoy and Sergio Verdú). *Proceedings of the 2004 IEEE Vehicular Technology Conference - Fall*, Los Angeles, CA, September 26 - 29, 2004.
- “Time-Frequency and Time-Scale Canonical Representations of Doubly Spread Channels,” (with Radu Balan, Scott Rickard and Sergio Verdú). *Proceedings of the 12th European Signal Processing Conference*, Vienna, Austria, September 7 - 10, 2004.
- “On Modeling the Firm-Specific Correlations Between Bonds and Stocks,” (with Li Chen and Damir Filipovic). *Proceedings of the Third World Congress of the Bachelier Finance Society*, Chicago, IL, July 21 - 24, 2004.
- “Consistency in Models for Distributed Learning under Communication Constraints,” (with Joel B. Predd and Sanjeev R. Kulkarni). *Proceedings of the 17th Annual Conference on Learning Theory*, Banff, CA, July 1 - 4, 2004.
- “Spectral Efficiency of Peak Power Limited Rician Block-Fading Channels,” (with Mustafa C. Gursoy and Sergio Verdú). *Proceedings of the 2004 IEEE International Symposium on Information Theory*, Chicago, IL, June 27 - July 2, 2004.
- “Consistency in a Model for Distributed Learning,” (with Joel B. Predd and Sanjeev R. Kulkarni). *Proceedings of the 2004 IEEE International Symposium on Information Theory*, Chicago, IL, June 27 - July 2, 2004.
- “The Trade-off Between Processing Gains of Impulse Radio Systems in the Presence of Timing Jitter,” (with Sinan Gezici, Hisashi Kobayashi and Andreas Molisch). *Proceedings of the 2004 IEEE International Conference on Communications*, Paris, France, June 20 - 24, 2004.
- “Soft Handoff and Uplink Capacity in a Two-Tier CDMA System,” (with Shaline Kishore, Larry J. Greenstein, and Stuart C. Schwartz). *Proceedings of the 2004 IEEE International Conference on Communications*, Paris, France, June 20 - 24, 2004.
- *“A Unified Approach to Power Control for Multiuser Detectors,” (with Farhad Meshkati, Donging Guo, Stuart Schwartz and Narayan Mandayam). *Proceedings of the Second Workshop on Signal Processing for Wireless Communications*, King’s College, London, June 2 - 4, 2004.
- “Optimal and Suboptimal Linear Receivers for Time-Hopping Impulse Radio Systems,” (with Sinan Gezici, Andreas Molisch and Hisashi Kobayashi). *Proceedings of the 2004 IEEE Conference on Ultra Wideband Systems and Technologies*, Kyoto, Japan, May 19 - 21, 2004.
- “A Comparative Study of Pulse Combining Schemes for Time-Hopping Impulse Radio UWB Systems,” (with Sinan Gezici and Hisashi Kobayashi). *Proceedings of the 2004 IEEE Sarnoff Symposium on Advances in Wired and Wireless Communications*, Princeton, NJ, April 26 - 27, 2004.
- “Optimal Investment Risk Exposure under Information Asymmetry,” (with Li Chen). *Proceedings of the 11th Annual Global Finance Conference*, Las Vegas, NV, April 4 - 6, 2004.
- “Performance Evaluation of Impulse Radio UWB Systems with Pulse-Based Polarity Randomization in Asynchronous Multiuser Environments,” (with Sinan Gezici, Hisashi Kobayashi and Andreas Molisch). *Proceedings of the 2004 IEEE Wireless Communications and Networking Conference*, Atlanta, GA, March 21 - 25, 2004.
- “Power Allocation and Spectral Efficiency in Multi-rate DS-CDMA Systems without Channel State Information at Transmitters,” (with Husheng Li). *Proceedings of the 2004 IEEE Wireless Communications and Networking Conference*, Atlanta, GA, March 21 - 25, 2004.
- “Impact of Imperfect Channel Estimation on Turbo Multiuser Detection in DS-CDMA Systems,” (with Husheng Li). *Proceedings of the 2004 IEEE Wireless Communications and Networking Conference*, Atlanta, GA, March 21 - 25, 2004.
- *“Multiuser MIMO Systems,” *Proceedings of the Twelfth Annual Workshop on Adaptive Sensor Array Processing*, Lincoln Laboratory, Lexington, MA, March 16 - 18, 2004.

- *“QoS Provisioning for Wireless Ad Hoc Data Networks,” (with Cristina Comaniciu). *Proceedings of the 42nd IEEE Conference on Decision and Control*, Maui, HI, December 9 - 12, 2003.
- “Bandit Problems with Arbitrary Side Information,” (with Chih-Chun Wang and Sanjeev R. Kulkarni). *Proceedings of the 42nd IEEE Conference on Decision and Control*, Maui, HI, December 9 - 12, 2003.
- “MIMO Capacity Results for Rician Fading Channels,” (with Sudharman K. Jayaweera). *Proceedings of the 2003 IEEE Global Telecommunications Conference*, San Francisco, CA, December 1 - 5, 2003.
- “Large-System Spectral Efficiency of Interference-Limited MIMO Systems,” (with Huaiyu Dai). *Proceedings of the 2003 IEEE Global Telecommunications Conference*, San Francisco, CA, December 1 - 5, 2003.
- “User Capacity in a CDMA Macrocell with a Hotspot Microcell: Effects of Transmit Power Constraints and Finite Dispersion,” (with Shaline Kishore, Larry J. Greenstein and Stuart C. Schwartz). *Proceedings of the 2003 IEEE Global Telecommunications Conference*, San Francisco, CA, December 1 - 5, 2003.
- “Downlink User Capacity in a CDMA Macrocell with a Hotspot Microcell,” (with Shaline Kishore, Larry J. Greenstein and Stuart C. Schwartz). *Proceedings of the 2003 IEEE Global Telecommunications Conference*, San Francisco, CA, December 1 - 5, 2003.
- *“Signal Processing Models for Discrete-Time Self-Similar and Multifractal Processes,” (with Raghuveer M. Rao, Seungsin Lee and Erhan Bayraktar) . *Proceedings of the 37th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 9 - 12, 2003.
- “On Channel Capacity of Parallel Interference Cancellation with Outage Probability in DS-CDMA Systems,” (with Husheng Li). *Proceedings of the 37th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 9 - 12, 2003.
- *“QoS in Multiple-access Systems: The Effects of Advanced Signal Processing,” *IEEE Communications Society/Wireless World Research Forum Workshop on Future of Wireless Research*, New York, NY, October 29, 2003.
- “Performance Analysis of Decorrelating Decision Feedback Detection for MIMO Systems in Rician Fading,” (with Sudharman Sayaweera). *Proceedings of the 6th International Symposium on Wireless Personal Multimedia Communications*, Yokosuka, Kanagawa, Japan, October 19 - 22, 2003. [Recipient of the Excellent Paper Award]
- “An Efficient Low-cost Time-hopping Impulse Radio for High Data Rate Transmission,” (with Andreas Molisch, et al.). *Proceedings of the 6th International Symposium on Wireless Personal Multimedia Communications*, Yokosuka, Kanagawa, Japan, October 19 - 22, 2003.
- “Non-Parametric Non-Line-of-Sight Identification,” (with Sinan Gezici and Hisashi Kobayashi). *Proceedings of the 2003 IEEE Fall Vehicular Technology Conference*, Orlando, FL, October 4 - 9, 2003.
- “Data Throughput in a Single-Macrocell/Single-Microcell CDMA System with Application to Data Access Points,” (with Shaline Kishore, Stuart C. Schwartz and Larry J. Greenstein). *Proceedings of the 2003 IEEE Fall Vehicular Technology Conference*, Orlando, FL, October 4 - 9, 2003.
- *“On the Performance of Wireless Ad Hoc Networks: Power Control, Multiuser Detection and User Capacity,” (with Cristina Comaniciu). *Proceedings of the 41st Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, October 1 - 3, 2003.
- “A Game Theoretic Approach to Power Control and Receiver Design in Wireless Data Networks with Multiple Antennas,” (with Farhad Meshkati, Stuart Schwartz and Narayan Mandayam). *Proceedings of the 41st Annual Allerton Conference on Communication, Control and Computing*, Monticello, IL, October 1 - 3, 2003.
- “Fractional Brownian Motion and Finance,” (with Erhan Bayraktar). Presented at *Fractional Brownian Days*, Helsinki, Finland, September 25 - 26, 2003.
- *“Turbo Multiuser Detection,” *Proceedings of the Third International Symposium on Turbo Codes and Related Topics*, Brest, France, September 1 - 5, 2003, pp. 591 - 598.
- “Density Evolution for Asymmetric Memoryless Channels,” (with Chih-Chun Wang and Sanjeev R. Kulkarni). *Proceedings of the Third International Symposium on Turbo Codes and Related Topics*, Brest, France, September 1 - 5, 2003.

- “A Rapid Acquisition Technique for Impulse Radio,” (with Sinan Gezici, Eran Fishler, Hisashi Kobayashi and Andreas F. Molisch). *Proceedings of the 2003 IEEE Pacific Rim Conference on Communications, Computers and Signal Processing*, Victoria, BC, August 28 - 30, 2003.
- “Projection of the Forward Rate Curve onto Exponential-Polynomial Families,” (with Erhan Bayraktar and Li Chen). *Proceedings of the 29th Conference on Stochastic Processes and their Applications*, Angra dos Reis, Brazil, August 3 - 9, 2003.
- “Parametric Estimation of Quadratic Term Structure Models of Interest Rates,” (with Li Chen). *Proceedings of the 9th International Conference on Computing in Economics and Finance*, Seattle, WA, July 11 - 13, 2003.
- “Markets with Inert Investors,” (with Erhan Bayraktar). *Proceedings of the EURO/INFORMS Joint International Meeting*, Istanbul, Turkey, July 6 - 10, 2003.
- “On the Capacity-Achieving Distribution of the Noncoherent Rician Fading Channel,” (with Mustafa Gursoy and Sergio Verdú). *Proceedings of the 2003 Canadian Workshop on Information Theory*, Waterloo, ON, May 18 - 21, 2003.
- “Stochastic Differential Games with Fractal Brownian Motion as a Modulator,” (with Erhan Bayraktar). *Proceedings of the Eighth Viennese Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics: Theory and Applications in Economics and OR/MS*, Vienna, Austria, May 14 - 16, 2003.
- “CDMA Cellular Downlink Transmission with Transmit Arrays and Power Control: Circuit-Switched and Packet-Switched Systems,” (with Huaiyu Dai and Laurence Mailander). *Proceedings of the 2003 IEEE International Conference on Communications*, Anchorage, Alaska, May 11 - 15, 2003.
- “Iterative Channel Estimation and Multiuser Detection in Multipath CDMA Channels,” (with Husheng Li). *Proceedings of the 2003 IEEE International Conference on Communications*, Anchorage, Alaska, May 11 - 15, 2003.
- “Spectral Efficiency of the Noncoherent Rician Fading Channel in the Low Power Regime,” (with Mustafa Gursoy and Sergio Verdú). *Proceedings of the Collaborative Technology Alliances and Communications and Networks Alliance 2003 Annual Symposium*, University of Maryland, College Park, MD, April 29 - May 1, 2003.
- *“Multiuser Detection in MIMO Systems.” Presented at the *2003 IEEE Communication Theory Workshop*, Mesa, AZ, April 6 - 9, 2003.
- “Admission Control Based Activity Detection in DS/CDMA Mobile Systems,” (with Than Ngoc Bui and Vikram Krishnamurthy, et al.) *Proceedings of the 2003 IEEE International Conference on Acoustics, Speech and Signal Processing*, Hong Kong, April 6 - 10, 2003.
- “Efficient Estimation of the Hurst Parameter in High Frequency Financial Data with Seasonalities using Wavelets,” (with Erhan Bayraktar and K. Ronnie Sircar). *Proceedings of the 2003 International Conference on Computational Intelligence for Financial Engineering (CIFER2003)*, Hong Kong, March 20 - 23, 2003.
- “Reduced State Joint Iterative Equalization and Multiuser Detection in Dispersive CDMA Channels,” (with Husheng Li). *Proceedings of the 2003 Wireless Communications and Networking Conference*, New Orleans, LA, March 16 - 20, 2003.
- “Performance of Channel Estimation in Long-code DS-CDMA with and without Decision Feedback,” (with Husheng Li). *Proceedings of the 2003 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 12 - 14, 2003.
- “Iterative Multiuser Detection for DS-CDMA/MC-CDMA Powerline Communications,” (with Huaiyu Dai). *Proceedings of the 2003 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 12 - 14, 2003.
- “Linear Multiuser Receivers and Power Control in Wireless Data Networks: A Game-Theoretic Approach,” (with Farhad Meshkati, Stuart C. Schwartz and Narayan Mandayam). *Proceedings of the 2003 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 12 - 14, 2003.
- “Low-Complexity Multiuser Detectors for Time Hopping Impulse Radio Systems,” (with Eran Fishler). *Proceedings of the 2003 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 12 - 14, 2003.

- “Multirate Groupwise MMSE in Multipath Fading Channels: Optimal Power Control and Asymptotic Capacity,” (with Cristina Comaniciu). *Proceedings of the 2003 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 12 - 14, 2003.
- “Time-of-Arrival Estimation in Non-Line-of-Sight Environments,” (with Sinan Gezici, Hisashi Kobayashi, Serdar Yüksel and Tamer Başar). *Proceedings of the 2003 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 12 - 14, 2003.
- “A New Approach to Mobile Position Tracking,” (with Sinan Gezici and Hisashi Kobayashi). *Proceedings of the 2003 IEEE Sarnoff Symposium on Advances in Wired and Wireless Communications*, The College of New Jersey, Ewing, NJ, March 12, 2003.
- “Bandit Problems with Side Observations,” (with Chih-Chun Wang and Sanjeev R. Kulkarni). *Proceedings of the 41st IEEE Conference on Decision and Control*, Las Vegas, NV, December 10 - 13, 2002.
- “Capacity of Multi-antenna Systems with Adaptive Transmission Techniques,” (with Sudharman K. Jayaweera). *Proceedings of the Fifth International Symposium on Wireless Personal Multimedia Communications*, Honolulu, Hawaii, October 27 - 30, 2002.
- “A Multi-pass Strategy for Data Detection in Long-code Downlink CDMA Systems,” (with Stefano Buzzi). *Proceedings of the Fifth International Symposium on Wireless Personal Multimedia Communications*, Honolulu, Hawaii, October 27 - 30, 2002.
- *“Blind Joint Equalization and Multiuser Detection in Dispersive MC-CDMA/MC-DS-CDMA/MT-CDMA Channels,” (with Walid Nabhan). *Proceedings of the 2002 IEEE Military Communications Conference*, Anaheim, CA, October 7 - 10, 2002.
- *“On the Tradeoff Between Two Types of Processing Gain,” (with Eran Fishler). *Proceedings of the 40th Annual Allerton Conference on Communication, Control and Computing*, University of Illinois at Urbana-Champaign, Monticello, IL, October 2 - 4, 2002.
- “Optimal Admission Control for Delay Sensitive Traffic in CDMA with LMMSE Receivers,” (with Cristina Comaniciu). *Proceedings of the 40th Annual Allerton Conference on Communication, Control and Computing*, University of Illinois at Urbana-Champaign, Monticello, IL, October 2 - 4, 2002.
- “Efficient Signaling for Low-Power Rician Fading Channels,” (with Mustafa Gursoy and Sergio Verdú). *Proceedings of the 40th Annual Allerton Conference on Communication, Control and Computing*, University of Illinois at Urbana-Champaign, Monticello, IL, October 2 - 4, 2002.
- “On the Capacity of Multi-antenna Systems in the Presence of Rician Fading,” (with Sudharman K. Jayaweera). *Proceedings of the 2002 IEEE Fall Vehicular Technology Conference*, Vancouver, BC, September 24 - 29, 2002.
- “A New VSL Scheme for Multi-rate DS-CDMA Systems,” (with Yingwei Yao). *Proceedings of the 2002 IEEE Fall Vehicular Technology Conference*, Vancouver, BC, September 24 - 29, 2002.
- “A Multi-pass Strategy for Channel Estimation and Data Detection in Long-code Uplink CDMA Systems,” (with Stefano Buzzi). *Proceedings of the 13th IEEE Conference on Personal, Indoor and Mobile Radio Communications (PIMRC)*, Lisbon, Portugal, September 15 - 18, 2002.
- “Downlink Capacity in Interference-limited MIMO Systems with Joint Detection,” (with Huaiyu Dai and Andreas Molisch). *Proceedings of the 13th IEEE Conference on Personal, Indoor and Mobile Radio Communications (PIMRC)*, Lisbon, Portugal, September 15 - 18, 2002.
- *“Statistical Problems in Wireless Communications.” Presented at the *First Cape Cod Workshop on Monte Carlo Methods*, Hyannis, MA, September 13 - 14, 2002.
- “On the Capacity of Mobile Ad Hoc Networks with Delay Constraints,” (with Cristina Comaniciu). *Proceedings of the IEEE CAS Workshop on Wireless Communications and Networking*, Pasadena, CA, September 5 - 6, 2002.
- “Asymptotic Performance of a Robust Multiuser Detector for Fast-fading Channels with Impulsive Noise,” (with Mario Tanda). *Proceedings of the 2002 European Signal Processing Conference*, Toulouse, France, September 3 - 6, 2002.
- “Blind Period Selection for Cyclic Adaptive Multiuser Detection in Multirate Multimedia CDMA Systems,” (with Stefano Buzzi, Vikram Krishnamurthy and Marco Lops). *Proceedings of the IEEE*

Seventh International Symposium on Spread Spectrum Techniques and Applications, Prague, Czech Republic, September 2 - 5, 2002.

- “A Turbo RAKE Receiver for Space-time Block Coded Frequency Selective CDMA Systems,” (with Sudharman K. Jayaweera). *Proceedings of the 2nd IEEE Sensor Array and Multichannel Signal Processing Workshop*, Washington DC, August 4 - 6, 2002.
- “An Optimality Property of the Square-root Measurement for Mixed States,” (with Julio I. Concha). *Proceedings of the Sixth International Conference on Quantum Communication, Measurement and Computing*, MIT, Cambridge, MA, July 22 - 26, 2002.
- “On the Probability of Error in Linear Multiuser Detection,” (with Marat V. Burnashev). *Proceedings of the 2002 IEEE International Symposium on Information Theory*, Lausanne, Switzerland, June 30 - July 5, 2002.
- *“Change Detection: A Tutorial Overview.” Presented at the *CCR/DIMACS Workshop/Tutorial on Mining Massive Data Sets and Streams: Mathematical Methods and Algorithms for Homeland Defense*, Princeton, NJ, June 17 - 22, 2002.
- “Uplink User Capacity in a Multicell CDMA System with Hotspot Microcells,” (with Shalinee Kishore, Larry J. Greenstein and Stuart C. Schwartz). *Proceedings of the 2002 IEEE Spring Vehicular Technology Conference*, Birmingham, AL, Vol. 2, pp. 992 - 996, May 6 - 10, 2002.
- “Turbo (Iterative) Decoding of a Space-time Code with a Convolutional Code,” (with Sudharman Jayaweera). *Proceedings of the 2002 IEEE Spring Vehicular Technology Conference*, Birmingham, AL, May 6 - 10, 2002.
- “Iterative Detection for Space-time Coded Synchronous CDMA Communication Systems,” (with Sudharman K. Jayaweera, Samuel J. MacMullan, and Alexander Flaig). *Proceedings of the 2002 IEEE Spring Vehicular Technology Conference*, Birmingham, AL, May 6 - 10, 2002.
- “Timing-free Code-aided Blind Adaptive Joint MAI and ISI Suppression in Dispersive CDMA Channels,” (with Stefano Buzzi and Marco Lops). *Proceedings of the 2002 IEEE Wireless Communications and Networking Conference*, Orlando, FL, March 17 - 21, 2002.
- “Admission Control for DS/CDMA Systems with Fading,” (with Sumeetpal S. Singh and Vikram Krishnamurthy). *Proceedings of the 2001 IEEE Global Telecommunications Conference*, San Antonio, TX, November 25 - 19, 2001.
- *“Blind Adaptive Space-Time Multiuser Detection for Fading Multipath Channels,” (with Daryl Reynolds and Xiaodong Wang). *Proceedings of the 2001 IEEE Military Communications Conference*, Vienna, VA, October 28 - 31, 2001.
- “User Capacity for Synchronous Multirate CDMA Systems with Linear MMSE Receivers,” (with Yingwei Yao). *Proceedings of the 2001 IEEE Fall Vehicular Technology Conference*, Atlantic City, NJ, October 7 - 11, 2001.
- “An Adaptive Rate Processor Sharing Technique,” (with Aikaterini Varsou). *Proceedings of the 2001 IEEE Fall Vehicular Technology Conference*, Atlantic City, NJ, October 7 - 11, 2001.
- “Iterative Multiuser Detection for Space-time Coded Synchronous CDMA,” (with Sudharman Jayaweera). *Proceedings of the 2001 IEEE Fall Vehicular Technology Conference*, Atlantic City, NJ, October 7 - 11, 2001.
- “Capacity in a CDMA Macrocell with a Hotspot Microcell: Exact and Approximate Analyses,” (with Shalinee Kishore, Larry J. Greenstein, and Stuart C. Schwartz). *Proceedings of the 2001 IEEE Fall Vehicular Technology Conference*, Atlantic City, NJ, October 7 - 11, 2001.
- “Sample-by-sample Adaptive Space-time Processing for Multiuser Detection in Multipath CDMA Systems,” (with Huaiyu Dai). *Proceedings of the 2001 IEEE Fall Vehicular Technology Conference*, Atlantic City, NJ, October 7 - 11, 2001.
- *“Least-Squares Detectors in Quantum Channels,” (with Julio I. Concha). *Proceedings of the 39th Annual Allerton Conference on Communication, Control and Computing*, University of Illinois at Urbana-Champaign, Monticello, IL, October 3 -5, 2001.
- “Low-Complexity Cyclic Blind Adaptive Algorithms for Multiuser Detection in Multirate DS/CDMA Systems,” (with Stefano Buzzi, Vikram Krishnamurthy and Marco Lops). *Proceedings of the Fourth*

International Symposium on Wireless Personal Multimedia Communications, Alborg, Denmark, September 9 - 12, 2001.

- “Channel Estimation and Multiuser Detection in Fast-Fading Channels with Impulsive Noise,” (with Mario Tanda). *Proceedings of the Fourth International Symposium on Wireless Personal Multimedia Communications*, Alborg, Denmark, September 9 - 12, 2001.
- *“Algebraic Methods for Blind Multiuser Detection in Dispersive Channels,” (with Stefano Buzzi and Marco Lops). *Proceedings of the Fourth SIAM Conference on Linear Algebra in Signals, Systems and Control*, Boston, MA, August 13 - 16, 2001.
- “A Time Varying Approach for Delay Service Guarantees,” (with Aikaterini Varsou). *Proceedings of the 11th INFORMS Applied Probability Society Conference*, New York, NY, July 25 - 27, 2001.
- “Matrix CUSUM: A Recursive Multi-hypothesis Change Detection Algorithm,” (with Taragay Oskiper). *Proceedings of the 2001 IEEE International Symposium on Information Theory*, Washington, DC, June 24 - 29, 2001.
- “A Blind Delay Estimation Algorithm for Long-Code DS/CDMA Systems,” (with Stefano Buzzi and Marco Lops). *Proceedings of the 2001 IEEE International Symposium on Information Theory*, Washington, DC, June 24 - 29, 2001.
- “Quantum Multiuser Detection,” (with Julio Concha). Presented at the *International Workshop on Coding and Information Theory*, University of Victoria, BC, June 7 - 8, 2001.
- “Waiting Time Analysis of the Generalized PEDF and HOLPRO Algorithms in a System with Heterogeneous Traffic,” (with Aikaterini Varsou). *Proceedings of the 2001 IEEE Spring Vehicular Technology Conference*, Rhodes, Greece, May 6 - 9, 2001.
- *“Quantum Multiuser Detection,” (with Julio Concha). Presented at the *2001 IEEE Communication Theory Workshop*, Borrego Springs, CA, April 29 - May 2, 2001.
- “Iterative Multiuser Detection and Decoding for DMT VDSL Systems,” (with Huaiyu Dai). *Proceedings of the the 35th Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, Maryland, March 21 - 23, 2001.
- “Delay Analysis for Powered Earliest Deadline First (PEDF) and Head of Line Pseudoprobability Assignment (HOLPRO),” (with Aikaterini Varsou). *Proceedings of the the 35th Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, Maryland, March 21 - 23, 2001.
- “Turbo Coding for a CDMA-Based Multiple-Beam Satellite Communication System,” (with Jin-Young Kim). *Proceedings of the 2000 Asia-Pacific Communications Conference (APCC2000)*, Seoul, Korea, October 31 - November 2, 2000. [Recipient of the Best Paper Award]
- *“Adaptive Parameter Estimation in CDMA Systems with Aperiodic Spreading Codes,” (with Stefano Buzzi). *Proceedings of the 38th Annual Allerton Conference on Communication, Control and Computing*, University of Illinois at Urbana-Champaign, Monticello, IL, October 4 - 6, 2000.
- “Blind Multiuser Detection in Multipath CDMA Channels with Unknown Correlated Noise,” (with Stefano Buzzi). *Proceedings of the 2000 IEEE Vehicular Technology Conference*, Boston, MA, September 24 - 28, 2000.
- “HOLPRO: A New Rate Scheduling Algorithm for the Downlink of CDMA Networks,” (with Aikaterini Varsou). *Proceedings of the 2000 IEEE Vehicular Technology Conference*, Boston, MA, September 24 - 28, 2000.
- *“Channel Estimation and Synchronization in Long-code CDMA Systems,” (with Stefano Buzzi). *Proceedings of the 2000 IEEE Wireless Communications and Networking Conference*, Chicago, IL, September 23 - 28, 2000.
- “An Optical CDMA Packet Network with Turbo Coding,” (with Jin-Young Kim). *Proceedings of the 2000 IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, London, UK, September 18 - 21, 2000, pp. 751-755.
- *“Turbo Multiuser Detection: An Overview,” *Proceedings of the 6th International Symposium on Spread Spectrum Techniques and Applications*, Parsippany, NJ, September 6 - 8, 2000, pp. 583 - 587.

- *“Iterative Space-Time Processing for Multiuser Detection in CDMA Channels,” (with Huaiyu Dai). *Proceedings of the 6th International Symposium on Spread Spectrum Techniques and Applications*, Parsippany, NJ, September 6 - 8, 2000, pp. 343 - 347.
- “Activity Detection in a Spread Spectrum Network,” (with Taragay Oskiper). *Proceedings of the IEEE Sixth International Symposium on Spread Spectrum Techniques and Applications*, Parsippany, NJ, September 6 - 8, 2000, pp. 310 - 313.
- “EM-Based Blind Demodulation of Synchronous CDMA,” (with Yingwei Yao). *Proceedings of the IEEE Sixth International Symposium on Spread Spectrum Techniques and Applications*, Parsippany, NJ, September 6 - 8, 2000, pp. 738 - 741.
- “Fast Switched-Beam Beamforming for Optimal Selection Combining in Frequency Selective Fading CDMA Channels,” (with Andrew Logothetis). *Proceedings of the IEEE Sixth International Symposium on Spread Spectrum Techniques and Applications*, Parsippany, NJ, September 6 - 8, 2000, pp. 20 - 24.
- *“Tracking of Fading Channels in Asynchronous CDMA Systems,” (with Catharina Carlemalm and Andrew Logothetis). *Proceedings of the 2000 European Signal Processing Conference*, Tampere, Finland, September 5 - 8, 2000.
- “Joint Carrier Phase and Frequency Offset Tracking in OFDM Systems,” (with Catharina Carlemalm and Andrew Logothetis). *Proceedings of the 2000 European Signal Processing Conference*, Tampere, Finland, September 5 - 8, 2000.
- “Multiuser Detection in Multipath Non-Gaussian Channels,” (with Mario Tanda). *Proceedings of the 2000 European Signal Processing Conference*, Tampere, Finland, September 5 - 8, 2000.
- *“Signal Processing: Enabler of the Wireless Revolution.” Presented at the *Workshop on Information Theory and Wireless Communications in the New Decade*, University of Naples, July 1, 2000.
- “Multiuser Detection in a Quantum Channel,” (with Julio Concha). *Proceedings of the 2000 IEEE International Symposium on Information Theory*, Sorrento, Italy, June 25 - 30, 2000.
- “On Linear Parallel Interference Cancellation,” (with Mehul Motani, D. Richard Brown, and C. Richard Johnson, Jr.). *Proceedings of the 2000 IEEE International Symposium on Information Theory*, Sorrento, Italy, June 25 - 30, 2000.
- “Asymptotic Performance of M -Estimator-Based Multiuser Detectors in Fading Non-Gaussian Channels,” (with Mario Tanda). *Proceedings of the 2000 IEEE International Symposium on Information Theory*, Sorrento, Italy, June 25 - 30, 2000.
- “On the Linear Structure of Self-Similar Processes,” (with Carl J. Nuzman). *Proceedings of the 2000 IEEE International Symposium on Information Theory*, Sorrento, Italy, June 25 - 30, 2000.
- *“Sequence Detection: Backward and Forward in Time.” Presented at *ForneyFest*, Cambridge, MA, March 2 - 3, 2000.
- *“Dynamic Adaptivity: Enabling Technology for Emerging Wireless Systems,” (with C. Richard Johnson, Jr.). *Proceedings of the 38th IEEE Conference on Decision and Control*, Phoenix, AZ, December 7 - 10, 1999.
- *“Scheduling of Switched Multibeam Antennas in a Multiple Access Environment,” (with Andrew Logothetis). *Proceedings of the 37th Annual Allerton Conference on Communications, Control, and Computing*, University of Illinois, Urbana, IL, pp. 1256 - 1265, September 22 - 24, 1999.
- *“Suppression of High-density, Dynamic Narrowband Interference in DS/CDMA Spread-spectrum Systems,” (with Catharina Carlemalm and Andrew Logothetis). *Proceedings of the 37th Annual Allerton Conference on Communications, Control, and Computing*, University of Illinois, Urbana, IL, pp. 800 - 809, September 22 - 24, 1999.
- *“Space-time Processing in Multiple-access Channels,” (with Xiaodong Wang). *Proceedings of the 1999 IEEE Wireless Communications and Networking Conference (WCNC '99)*, pp. 129 - 133, New Orleans, LA, September 21 - 24, 1999.
- *“Eavesdropping on the IS-95 Downlink: Reduced Complexity Optimum and Suboptimum Multiuser Detection,” (with D. Richard Brown, III, and C. Richard Johnson, Jr.). *Proceedings of the 1999 IEEE Wireless Communications and Networking Conference (WCNC '99)*, pp. 819 - 823, New Orleans, LA, September 21 - 24, 1999.

- *“Iterative Multiuser Detection for Turbo-coded CDMA,” (with Xiaodong Wang). *Proceedings of the 1999 IEEE Wireless Communications and Networking Conference (WCNC '99)*, pp. 1456 - 1460, New Orleans, LA, September 21 - 24, 1999.
- *“Blind Adaptive Space-Time Multiuser Detection in Multipath CDMA Channels,” (with Xiaodong Wang). *Proceedings of the 1999 IEEE Wireless Communications and Networking Conference (WCNC '99)*, pp. 1033 - 1037, New Orleans, LA, September 21 - 24, 1999.
- *“Multiuser Detection in Fading Non-Gaussian Channels,” (with Mario Tanda). *Proceedings of the 1999 Conference on Information Sciences and Systems*, pp. 368 - 372, The Johns Hopkins University, Baltimore, MD, March 17 - 19, 1999.
- “Transformed Spectral Analysis of Self-Similar Processes,” (with Carl J. Nuzman). *Proceedings of the 1999 Conference on Information Sciences and Systems*, pp. 927 - 932, The Johns Hopkins University, Baltimore, MD, March 17 - 19, 1999.
- “Quickest Detection in a Multiuser Environment,” (with Taragay Oskiper). *Proceedings of the 1999 Conference on Information Sciences and Systems*, pp. 87 - 92, The Johns Hopkins University, Baltimore, MD, March 17 - 19, 1999.
- “Space-time Multiuser Detection in Multipath CDMA Channels,” (with Xiaodong Wang). *Proceedings of the 1999 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP'99)*, Phoenix, AZ, March 15 - 19, 1999.
- “On M -Estimator Multiuser Detection in Non-Gaussian Channels,” (with Mario Tanda). *Proceedings of the 3rd European Personal Mobile Communications Conference (EPMCC'99)*, Paris, France, March 9 - 11, 1999.
- “Multiuser Detection: Interference Suppression as Integer Regression,” *Proceedings of the 1999 IEEE Information Theory Workshop on Detection, Estimation, Classification and Imaging*, Santa Fe, NM, February 23 - 27, 1999.
- *“Turbo Multiuser Detection,” (with Xiaodong Wang). *Proceedings of the 33rd Asilomar Conference on Signals, Systems and Computers*, pp. 635 - 639, Pacific Grove, CA, November 1 - 4, 1998.
- *“Space-Time Multiuser Detection,” (with Xiaodong Wang). *Proceedings of the 33rd Asilomar Conference on Signals, Systems and Computers*, pp. 1079 - 1083, Pacific Grove, CA, November 1 - 4, 1998.
- “Turbo Multiuser Detection and Equalization for Coded CDMA in Multipath Channels,” (with Xiaodong Wang). *Proceedings of the 1998 International Conference of Universal Personal Communications (ICUCP'98)*, Florence, Italy, October 5 - 8, 1998.
- *“On the Relative Error Probabilities of Linear Multiuser Detectors,” (with George V. Moustakides). *Proceedings of the 36th Annual Allerton Conference on Communications, Control, and Computing*, University of Illinois, Urbana, IL, September 23 - 25, 1998.
- *“Adaptive Interference Suppression for Wireless Multiple-access Communication Systems,” *Proceedings of the First IEEE CAS Workshop on Wireless-Communication Circuits and Systems*, Lucerne, Switzerland, June 22 - 24, 1998.
- “Robust Adaptive Array for Wireless Communications,” (with Xiaodong Wang). *Proceedings of the 1998 IEEE International Conference on Communications (ICC'98)*, Atlanta, GA, June 7 - 11, 1998.
- *“Signal Processing Algorithms for Adaptive Interference Suppression,” *Proceedings of the 1998 IEEE International Symposium on Circuits and Systems (ISCAS'98)*, Monterey, CA, May 31 - June 3, 1998.
- “Blind Joint Equalization and Multiuser Detection for DS-CDMA in Unknown Correlated Noise,” (with Xiaodong Wang). *Proceedings of the 1998 IEEE International Symposium on Circuits and Systems (ISCAS'98)*, Monterey, CA, May 31 - June 3, 1998.
- “A New Adaptive Array Algorithm for Interference Suppression in Wireless Communications,” (with Xiaodong Wang). *Proceedings of the 48th IEEE Vehicular Technology Conference*, Ottawa, ON, Canada, May 18 - 21, 1998.
- “Blind Adaptive Interference Suppression in DS-CDMA Communications with Impulsive Noise,” (with Xiaodong Wang). *Proceedings of the 1998 IEEE International Conference on Acoustics, Speech and Signal Processing*, Seattle, WA, May 12 - 15, 1998.

- “Finite Dimensional Filters for Nonlinear Functionals of Gauss-Markov Processes,” (with Vikram Krishnamurthy). *Proceedings of the 1998 World Automation Conference (WAC’98) - Second International Symposium on Intelligent Automation and Control*, Anchorage, Alaska, May 10 - 14, 1998.
- *“EM and Other Iterative Algorithms for Multiuser Detection.” Presented at the *1998 IEEE Communication Theory Workshop*, Captiva Island, FL, May 3 - 6, 1998.
- “Fault Diagnostics Using Statistical Change Detection in the Bispectral Domain,” (with B. Eugene Parker, Jr., Hunter A. Ware, and Edward C. Larson). *Proceedings of the Workshop on Enhancement of Helicopter Fault Diagnosis Methodologies*, Virginia Beach, VA, March 30 - April 2, 1998.
- *“Subspace Techniques for Blind Adaptive Multiuser Detection,” (with Xiaodong Wang). *Proceedings of the 1998 IEEE Information Theory Workshop*, San Diego, CA, February 9 - 11, 1998.
- *“Delta-Operator Based Signal Processing: Fast Algorithms for Rapidly Sampled Data,” *Proceedings of the 36th Annual IEEE Conference on Decision and Control*, San Diego, CA, December 10 - 12, 1997, pp. 872 - 877.
- “James-Stein State Space Filter,” (with Jonathan H. Manton and Vikram Krishnamurthy). *Proceedings of the 36th Annual IEEE Conference on Decision and Control*, San Diego, CA, December 9 - 11, 1997, pp. 3454 - 3459.
- *“Communications: Some Reminiscences on Mac Van Valkenburg, and Some Comments on the State of the Field,” *Mac E. Van Valkenburg Memorial Symposium*, University of Illinois at Urbana-Champaign, November 15, 1997.
- *“Blind Adaptive Joint Suppression of MAI and ISI in CDMA Channels,” (with Xiaodong Wang). *Proceedings of the 32nd Asilomar Conference on Signals, Systems and Computers*, pp. 1013 - 1017, Pacific Grove, CA, November 2 - 5, 1997.
- “Blind Equalization and Multiuser Detection for High Rate Indoor Wireless CDMA Communications,” (with Xiaodong Wang). *Proceedings of the 1997 IEEE Global Telecommunications Conference*, Phoenix, AZ, November 5 - 7, 1997.
- “Code-aided Adaptive Narrowband Interference Suppression for Direct-sequence Spread-spectrum Communications,” (with Xiaodong Wang). *Proceedings of the 1997 IEEE Military Communications Conference*, Monterey, CA, November 2 - 5, 1997.
- “Subspace-based Blind Adaptive Joint Interference Suppression and Channel Estimation in Multipath CDMA Channels,” (with Xiaodong Wang). *Proceedings of the 1997 International Conference on Universal Personal Communications*, San Diego, CA, October 13 - 17, 1997.
- *“Adaptive Multiuser Detection in Non-Gaussian Channels,” (with Xiaodong Wang). *Proceedings of the 35th Allerton Conference on Communications, Control and Computing*, University of Illinois at Urbana-Champaign, Monticello, IL, pp. 603 - 612, September 29 - October 1, 1997.
- “An Analysis of Some Multiuser Detectors in Impulsive Noise,” (with Mario Tanda). *Proceedings of the 16th GRETSI Symposium on Signal and Image Processing*, Grenoble, France, September 15 - 17, 1997.
- *“Quickest Detection: Time Optimal Methods for Statistical Change Detection,” *NSF Tutorial Workshop on Mathematical Techniques to Mine Massive Data Sets*, University of Illinois at Chicago, Chicago, IL, July 12 - 15, 1997.
- “Statistical Change Detection Using Nonlinear Models,” (with B. Eugene Parker, Jr., et al.). *Proceedings of NOISECON’97*, Penn State University, State College, PA, June 15 - 17, 1997.
- “Adaptive Multiuser Diversity Receivers for Frequency-Selective Rayleigh Fading CDMA Channels,” (with Xiaodong Wang) *Proceedings of the 47th IEEE Vehicular Technology Conference*, Phoenix, AZ, May 5 - 7, 1997, Vol. I, pp. 198 - 202.
- “Blind Adaptive Interference Suppression for CDMA Communications Based on Eigenspace Tracking,” (with Xiaodong Wang). *Proceedings of the 1997 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 19 - 21, 1997.
- *“Recent Advances in Multiuser Detection,” *Proceedings of the 1997 Symposium on Interference Rejection and Signal Separation in Wireless Communications*, George Washington University, Washington, DC, March 18, 1997.

- “Phase Noise in Coherent Analog AM-WIRNA Optical Links,” (with Robert Taylor and Stephen Forrest). *Proceedings of LEOS'96: The 9th Meeting of the IEEE Lasers and Electro-optics Society*, Boston, MA, November 18 - 21, 1996.
- *“Adaptive Interference Suppression for Wireless Communication Systems,” *IEEE Workshop on Advanced Signal Processing Applications in Wireless Communications: Workshop Notes*, University of Pennsylvania, Philadelphia, PA, October 26, 1996.
- *“Adaptive Multiuser Detection in Fading Channels,” (with Xiaodong Wang). *Proceedings of the 34th Annual Allerton Conference on Communications, Control, and Computing*, University of Illinois, Urbana, IL, October 2 - 4, 1996, pp. 603 - 612.
- “Delta-operator Linear Prediction Models for Two-Dimensional Data,” (with Lih-Huah Yiin). *Proceedings of the 34th Annual Allerton Conference on Communications, Control, and Computing*, pp. 574 - 582, University of Illinois, Urbana, IL, October 2 - 4, 1996.
- *“Signal Processing for Adaptive Interference Suppression in CDMA Systems,” (with Xiaodong Wang). *Proceedings of the 5th European Workshop on DSP Applied to Space Communications*, Barcelona, Spain, September 25 - 27, 1996, pp. 11.1 - 11.10.
- “Multiband Cyclic Wavelet Transforms,” (with Sandip Sarkar). *Proceedings of the 1996 IEEE International Conference on Image Processing*, Lausanne, Switzerland, September 16 - 19, 1996.
- “Data Mining and Tree-based Optimization,” (with Robert L. Grossman, Haim Bodek and Dave Northcutt). *Proceedings of the Second International Conference on Knowledge Discovery and Data Mining*, Portland, Oregon, August 2 - 4, 1996.
- “Parametric Pulse Train De-Interleaving of Stochastic Sources,” (with Andrew Logothetis and Vikram Krishnamurthy) *Proceedings of the IFAC 13th World Congress*, San Francisco, CA, June 30 - July 5, 1996, Vol. I, pp. 303 - 308.
- “State Encoding of Hidden Markov Linear Prediction Models,” (with Vikram Krishnamurthy) *Proceedings of the IFAC 13th World Congress*, San Francisco, CA, June 30 - July 5, 1996, Vol. K, pp. 151 - 155.
- “Quickest Detection with Exponential Penalty for Delay,” *Proceedings of the 1996 IEEE Information Theory Workshop*, Haifa, Israel, June 9 - 13, 1996.
- “Helicopter Transmission Diagnostics Using Vibration Signature Analysis,” (with B. Eugene Parker, Jr., et al.). *Proceedings of the 50th Meeting of the Society for Machinery Failure Prevention Technology*, Mobile, AL, April 22 - 26, 1996.
- *“Non-Gaussian Signal Processing Problems in Multiple-access Communications,” *Proceedings of the 1996 USC/CRASP Workshop on Non-Gaussian Signal Processing*, Ft. George Meade, MD, May 24, 1996.
- *“Adaptive Suppression of Narrowband Digital Interferers in Spread-spectrum Networks,” (with Xiaodong Wang). *Proceedings of the 1996 IEEE International Conference on Acoustics, Speech and Signal Processing*, Atlanta, GA, May 1996, Vol. II, pp. 1061 - 1064.
- “Optimization Driven Data Mining and Credit Scoring,” (with Robert L. Grossman). *Proceedings of the 1996 IEEE/IAFE Conference on Computational Intelligence in Financial Engineering*, New York, NY, March 24 - 26, 1996.
- *“Adaptivity in Multiple-access Communications,” *Proceedings of the 34th IEEE Conference on Decision and Control*, New Orleans, LA, December 13-15, 1995.
- “Detection of Spread-spectrum Signals for Linear Multi-user Receivers,” (with Urbashi Mitra). *Proceedings of the 1995 IEEE International Symposium on Information Theory*, Whistler, BC, Canada, September 17 - 22, 1995.
- “Finite-field Wavelet Transforms and Multilevel Error Protection,” (with Sandip Sarkar). *Proceedings of the 1995 IEEE International Symposium on Information Theory*, Whistler, BC, Canada, September 17 - 22, 1995.
- “Differential Encoding of High-resolution Data,” *Proceedings of the 1995 IEEE/URSI International Geoscience and Remote Sensing Symposium*, Florence, Italy, July 10 - 14, 1995, pp. 1675 - 1677.
- “Adaptive Decorrelating Detectors for CDMA Channels,” (with Urbashi Mitra). *Proceedings of the 1995 IEEE International Conference on Communications*, Seattle, WA, June 18 - 22, 1995.

- “Detection of Spread-spectrum Signals in a Multi-user Environment,” (with Urbashi Mitra). *Proceedings of the 1995 IEEE International Conference on Acoustics, Speech and Signal Processing*, Detroit, MI, May 8 - 12, 1995.
- “Asymptotic Analysis of an Algorithm for Identification of Quantized AR Time-Series,” (with Vikram Krishnamurthy). *Proceedings of the 1995 IEEE International Conference on Acoustics, Speech and Signal Processing*, Detroit, MI, May 8 - 12, 1995.
- *“On the Bit-error Rate of MMSE Multiuser Detection,” (with Sergio Verdú). *Proceedings of the 1995 IEEE Workshop on Information Theory, Multiple Access and Queueing*, St. Louis, MO, April 19 - 21, 1995.
- “Certain Generalizations of the Cyclic Wavelet Transform,” (with Sandip Sarkar). *Proceedings of the 1995 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 22 - 24, 1995.
- “Linear Interpolation Models for Rapidly Sampled Data,” (with Lih-Huah Yiin). *Proceedings of the 1995 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 22 - 24, 1995.
- “Approximate Stochastic Realization and Robust Prediction: Algorithms for Iterative Solution,” *Proceedings of the 33rd IEEE Conference on Decision and Control*, Orlando, FL, December 14 - 16, 1994, pp. 738 - 744.
- “Phase Drift Effects in Optical CDMA,” (with Leslie A. Rusch). *Proceedings of the 1994 IEEE Global Telecommunications Conference*, San Francisco, CA, November 28 - December 2, 1994, pp. 159 - 165.
- “EM and SAGE Algorithms for Multi-user Detection,” (with Laurie B. Nelson). *Proceedings of the 1994 IEEE/IMS Workshop on Information Theory and Statistics*, Alexandria, VA, October 27 - 29, 1994, p. 70.
- *“High-Speed Digital Signal Processing for Space Communications,” (with Sergio Verdú). *Proceedings of the 4th ESA Workshop on Digital Signal Processing Applied to Space Communications*, London, England, September 26 - 28, 1994, pp. 7.1 - 7.25.
- “Soft-decision Interference Cancellation for AWGN Multi-user Channels,” (with Laurie B. Nelson). *Proceedings of the 1994 IEEE International Symposium on Information Theory*, Trondheim, Norway, June 27 - July 1, 1994, p. 134.
- *“Detection of Small Changes in Mechanical Systems,” (with B. Eugene Parker, Jr., and Monica Carley). *Proceedings of the U.S. Navy Neural Networks Conference*, Arlington, VA, June 16 - 17, 1994.
- *“Interference Suppression in Wideband Communications,” *Center for Research in Applied Signal Processing: Proceedings on Co-channel Demodulation*, Ft. George Meade, MD, June 2, 1994.
- “A Projection Based Adaptive Decorrelating Detector for Synchronous CDMA Channels,” (with Urbashi Mitra). *Proceedings of the 28th Annual Conference on Information Sciences and Systems*, Princeton University, Princeton, NJ, March 16 - 18, 1994, pp. 1004 - 1009.
- “Asymptotic Normality of the Cross-correlation of CDMA System with Phase Drift,” (with Leslie A. Rusch). *Proceedings of the 28th Annual Conference on Information Sciences and Systems*, Princeton University, Princeton, NJ March 16 - 18, 1994, pp. 449 - 455.
- “Analysis of an Adaptive Decorrelating Detector for Synchronous CDMA Channels,” (with Urbashi Mitra). *Proceedings of the 7th IEE European Conference on Mobile Personal Communications*, Brighton, UK, December 1993, pp. 155 - 160.
- “Narrowband Interference Suppression in Spread Spectrum Communications Via Multiuser Detection Techniques,” (with Leslie A. Rusch). *Proceedings of the 7th IEE European Conference on Mobile Personal Communications*, Brighton, UK, December 1993, pp. 84 - 89.
- “A Lower Bound on the Probability of Error in Multihypothesis Testing,” (with Sergio Verdú). *Proceedings of the 31st Annual Allerton Conference on Communications, Control and Computing*, University of Illinois, Monticello, IL, September 29 - October 1, 1993, pp. 758 - 759.
- *“Neural Networks in Adaptive Multiuser Detection,” (with Urbashi Mitra). *Proceedings of the 4th International Conference on Advances in Communications and Control*, Rhodes, Greece, June 14 - 18, 1993.

- *“A Construction Technique for Efficient Sequential Estimators, with Applications to Multiuser Estimation,” (with Yossef Steinberg). *Proceedings of the 1993 IEEE Information Theory Workshop*, Shizuoka, Japan, June 4 - 8, 1993.
- “Helicopter Gearbox Diagnostics and Prognostics Using Vibration Signature Analysis,” (with B. Eugene Parker, Jr., et al.). *Proceedings of the SPIE Conference on Aerospace and Remote Sensing*, Orlando, FL, April 12 - 16, 1993.
- “Neural Network Techniques for Multiuser Demodulation,” (with Urbashi Mitra). *Proceedings of the 1993 IEEE Neural Network Conference*, San Francisco, CA, March 28 - April 1, 1993.
- “Multiuser Delay Estimation,” (with Yossef Steinberg). *Proceedings of the 1993 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 17 - 19, 1993.
- “On Sequential Delay Estimation in Digital Communication Systems,” (with Yossef Steinberg). *Proceedings of the 1993 IEEE International Symposium on Information Theory*, San Antonio, TX, January 17 - 22, 1993, p. 423.
- “Performance Analysis of Optimum Demodulation in Optical CDMA,” (with Laurie B. Nelson). *Proceedings of the 1993 IEEE International Symposium on Information Theory*, San Antonio, TX, January 17 - 22, 1993, p. 44.
- “Asymptotic Expansions for Sample Size in Signal Detection,” (with Marat V. Burnashev). *Proceedings of the 1993 IEEE International Symposium on Information Theory*, San Antonio, TX, January 17 - 22, 1993, p. 15.
- “Sequential Amplitude Estimation in Multiuser Communications,” (with Yossef Steinberg). *Proceedings of the 31st IEEE Conference on Decision and Control*, Tucson, AZ, December 16 - 18, 1992, pp. 2239 - 2244.
- “Adaptive Nonlinear Polynomial Neural Networks for Control of Boundary Layer/Structural Interaction,” (with B. Eugene Parker, Jr.). *Proceedings of the 1992 Symposium on Active Control of Noise and Vibration*, ASME Winter Annual Meeting, Anaheim, CA, November 8 - 13, 1992, pp. 31 - 44.
- *“Wavelet Transforms Associated with Finite Cyclic Groups,” (with Giuseppe Caire and Robert J. Grossman). *Proceedings of the 26th Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, October 26 - 28, 1992.
- “Adaptive Receiver Algorithms for Near-far Resistant CDMA,” (with Urbashi Mitra). *Proceedings of the Third International Symposium on Personal, Indoor and Mobile Radio Communications*, Boston, MA, October 19 - 21, 1992, pp. 639 - 644.
- “Improved Algorithms for Narrowband Interference Suppression in Direct-sequence Spread-spectrum,” (with Leslie A. Rusch). *Proceedings of the Third International Symposium on Personal, Indoor and Mobile Radio Communications*, Boston, MA, October 19 - 21, 1992, pp. 623 - 628.
- *“Statistical Signal Processing for Wideband Communications,” *Proceedings of the Third Annual Workshop on Digital Signal Processing Techniques Applied to Space Communications*, European Space Agency (ESTEC), Noordwijk, The Netherlands, September 23 - 25, 1992.
- *“Asymptotic Expansions in Signal Detection,” (with Marat V. Burnashev). *Proceedings of the 1992 Symposium on Information Theory and Its Applications*, Minakami, Japan, September 8 - 11, 1992.
- “Decentralized Sequential Detection with a Fusion Center Performing the Sequential Test,” (with Venugopal V. Veeravalli and Tamer Başar). *Proceedings of the 1992 American Control Conference*, Chicago, IL, June 24 - 26, 1992.
- *“Fast Algorithms for Modeling Rapidly Sampled Data,” *Proceedings of the 24th Symposium on the Interface: Computing Science and Statistics*, Texas A&M University, College Station, TX, March 19 - 21, 1992.
- “Minimax Robust Decentralized Detection,” (with Venu Veeravalli and Tamer Başar). *Proceedings of the 1992 Conference on Information Sciences and Systems*, Princeton University, Princeton, NJ, March 18 - 20, 1992.
- “A New Approach to Interference Suppression in Spread-spectrum Systems,” (with Lee M. Garth and Rajiv Vijayan). *Proceedings of the 1991 IEEE Military Communications Conference*, McLean, VA, November 4 - 7, 1991, pp. 375 - 379.

- *“Signal Processing for Wideband Communications,” *IEEE Simposium Tecnico Internacional: Panorama y Perspectivas Tecnologicas*, Mexico City, Mexico, October 3, 1991.
- *“Choice of Basis Functions for Continuous and Discrete System Modelling,” (with Graham C. Goodwin and Brett Ninness). *Proceedings of the Ninth IFAC/IFORS Symposium on Identification*, Budapest, Hungary, July 8 - 12, 1991, pp. 1179 - 1184.
- “A New Technique for the Detection of Gaussian Signals in Non-Gaussian Noise,” *121st Meeting of the Acoustical Society of America* Baltimore, MD, April 29 - May 3, 1991. [Abstract appears in *Journal of the Acoustical Society of America*, Vol. 89, No. 4, Pt. 2, April 1991, p. 2000.]
- “The Decentralized Wald Problem with a Nonlinear Penalty on Stopping Times,” (with Venu Veeravalli and Tamer Başar). *Proceedings of the 1991 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 20 - 22, 1991, pp. 277 - 282.
- “Fast Algorithms for Triangular Factorization of Covariance Matrices of Differenced Data,” (with Rajiv Vijayan). *Proceedings of the 1991 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, March 20 - 22, 1991, pp. 80 - 84.
- “A Schur-type Algorithm for Modeling Rapidly Sampled Data,” (with Rajiv Vijayan). *Proceedings of the 1990 International Symposium on Information Theory and Its Applications*, Honolulu, HI, November 26 - 30, 1990, pp. 371 - 373.
- *“Difference-operator Based Models in Statistical Signal Processing,” (with Rajiv Vijayan). *Proceedings of the 1990 IEEE Digital Signal Processing Workshop*, New Paltz, NY, September 13 - 17, 1990, pp. 8.9.1 - 8.9.2.
- *“High-Speed Statistical Signal Processing: The Levinson and Schur Problems,” (with Rajiv Vijayan). *Proceedings of BILCON'90*, Bilkent University, Ankara, Turkey, July 2 - 6, 1990, pp. 1526 - 1540.
- “Quadratic Detection of Lorentzian Signals,” (with Venu Veravalli). *Proceedings of the 24th Annual Conference on Information Science and Systems*, Princeton University, Princeton NJ, p. 326, March 21- 23, 1990, p. 326.
- “Efficient Identification of Impulsive Channels,” (with Serena M. Zabin). *Abstracts of Papers: 1990 IEEE International Symposium on Information Theory*, San Diego, CA, p. 96, January 1990.
- “On Model-fitting with Rapidly Sampled Data,” (with Rajiv Vijayan). *Abstracts of Papers: 1990 IEEE International Symposium on Information Theory*, San Diego, CA, p. 77, January 1990.
- *“Robust Signal Detection and Estimation: A Geometric Approach,” (with Richard J. Barton). Presented at the *1989 IEEE Information Theory Workshop*, Cornell University, Ithaca, NY, June 26 - 30, 1989.
- *“Optimum Demodulation in Asynchronous Multiuser Communications,” Presented at the *International Conference on Computing and Information*, Department of Mathematical Sciences, McMaster University, Hamilton, Ontario, April 24 - 29, 1989.
- “A Levinson-Type Algorithm for Rapidly Sampled Data,” (with Rajiv Vijayan, John B. Moore, and Graham C. Goodwin). *Proceedings of the 22nd Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 314 - 319, March 22 - 24, 1989.
- “Estimation of Impulsive-Channel Parameters Via the EM Algorithm,” (with Serena M. Zabin). *Proceedings of the 22nd Annual Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, p. 301, March 22 - 24, 1989.
- *“Analysis of a Class of Adaptive Nonlinear Predictors,” (with Rajiv Vijayan). *Proceedings of the 1988 International Conference on Advances in Communications and Control Systems*, Baton Rouge, LA, pp. 360 - 370, October 19 - 21, 1988.
- *“On Parameter Estimation in DS/SSMA Formats,” *Proceedings of the 1988 International Conference on Advances in Communications and Control Systems*, Baton Rouge, LA, pp. 98 - 109, October 19 - 21, 1988.
- *“Robust Signal Detection and Estimation: An RKHS Approach,” (with Richard J. Barton). *Proceedings of the 1988 IEEE Digital Signal Processing Workshop*, Tahoe, CA, pp. 5.2.1 - 5.2.2, September 15 - 17, 1988.
- “New Algorithms for the Identification of Impulsive Noise,” (with Serena M. Zabin). *Abstracts of Papers: 1988 IEEE International Symposium on Information Theory*, Kobe, Japan, p. 31, June 1988.

- “Improved Algorithms for the Rejection of Narrowband Interference from Direct-sequence Signals,” (with Rajiv Vijayan). *Proceedings of the 22nd Annual Conference on Information Science and Systems*, Princeton University, Princeton, NJ, pp. 851 - 856, March 1988.
- “Recursive Estimation of the Class A Noise Model Parameters,” (with Serena M. Zabin). *Proceedings of the 22nd Annual Conference on Information Sciences and Systems*, Princeton University, Princeton, NJ, p. 178, March 1988.
- “A Representation of Fractional Brownian Motion with Applications to Signal Detection,” (with Richard J. Barton). *Abstracts of Papers: 1986 IEEE International Symposium on Information Theory*, Ann Arbor, MI, p. 62, October 1986.
- “Parameter Estimation in the Middleton Class A Interference Model,” (with Serena M. Zabin). *Abstracts of Papers: 1986 IEEE International Symposium on Information Theory*, Ann Arbor, MI, p. 28, October 1986.
- “A Comparison of Linear and Hard-limiting Correlation Receivers for DS/SSMA Communications in Impulsive Channels,” (with Behnaam Aazhang). *Proceedings of the 1986 Conference on Information Sciences and Systems*, Princeton University, Princeton, NJ, pp. 387 - 392, March 1986.
- “Optimum Demodulation of Asynchronous Multiple-access Signals,” (with Sergio Verdú). *ARO Workshop on Research Trends in Spread-Spectrum Systems*, Cowichan Bay, BC, Canada, August 4 - 7, 1985.
- “Some Aspects of Data Quantization in Signal Detection and Estimation,” *Abstracts of Papers: 1985 IEEE International Symposium on Information Theory*, Brighton, England, June 23 - 29, 1985.
- “Performance of the Hard-Limiting DS/SSMA Receiver in Non-Gaussian Noise,” (with Behnaam Aazhang). *Proceedings of the 1985 IEEE International Conference on Communications, Conference Record*, Chicago, IL, pp. 844 - 849, June 23 - 26, 1985.
- “Asymptotic and Approximate Results on the Performance of DS/SSMA Receivers in Non-Gaussian Noise,” (with Behnaam Aazhang). *Proceedings of the 19th Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 520 - 525, March 27 - 29, 1985.
- *“Quantization Effects in the Filtering of Stationary Gaussian Processes,” *Proceedings of the 23rd IEEE Conference on Decision and Control*, Las Vegas, NV, pp. 1430 - 1435, December 12 - 14, 1984.
- “Backward, Forward, and Backward-Forward Dynamic Programming Models under Commutativity Conditions,” (with Sergio Verdú). *Proceedings of the 23rd IEEE Conference on Decision and Control*, Las Vegas, NV, pp. 1081 - 1086, December 12 - 14, 1984.
- “Non-Gaussian Effects in DS/SSMA Communications,” (with Behnaam Aazhang). *Proceedings of the 1984 IEEE Military Communications Conference*, Los Angeles, CA, pp. 509 - 514, November 21 - 24, 1984.
- “Robust Prediction and ARMA Models,” *Proceedings of the 1984 Conference on Information Sciences and Systems*, Princeton University, Princeton, NJ, pp. 17 - 18, March 14 - 16, 1984.
- *“Some Results on Robust Signal Detection,” *Proceedings of the 22nd IEEE Conference on Decision and Control*, San Antonio, TX, pp. 1098 - 1105, December 14 - 16, 1983.
- *“A Companding Approximation for the Statistical Divergence of Quantized Data,” *Proceedings of the 22nd IEEE Conference on Decision and Control*, San Antonio, TX, pp. 697 - 702, December 14 - 16, 1983.
- “Some Minimax Detection and Estimation Problems in a Hilbert Space Setting,” (with Sergio Verdú). *Proceedings of the 22nd IEEE Conference on Decision and Control*, San Antonio, TX, pp. 292 - 297, December 14 - 16, 1983.
- *“Finite-length Robust Linear Filtering and Prediction,” *Workshop on Robust and Nonlinear Time Series Analysis*, University of Heidelberg, West Germany, September 26 - 30, 1983.
- “On the Inverse Minimax Filtering Problem,” (with Sergio Verdú). Presented at the *Abstracts of Papers: 1983 IEEE International Symposium on Information Theory*, St. Jovite, Quebec, Canada, p. 103, September 26 - 30, 1983.
- *“An Approach to Some Minimax Problems in Communication and Control,” (with Sergio Verdú). *Optimization Days*, Ecole Polytechnique de Montreal, Canada, May 11 - 13, 1983.

- “The Companding Approximation in Optimum Data Quantization for Signal Detection,” (with Behnaam Aazhang). *Proceedings of the 1983 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 781 - 792, March 23 - 25, 1983.
- “A Note on Memory Length and the Detection of Gaussian Signals,” (with Chein-I Chang). *Proceedings of the 1983 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 539 - 543, March 23 - 25, 1983.
- “Optimum Signal Design for Communication Through Uncertain Distorting Channels,” (with Sergio Verdú). *Proceedings of the 1983 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 222 - 227, March 23 - 25, 1983.
- *“Some Results on Robust Data Quantization,” *Proceedings of the 21st IEEE Conference on Decision and Control*, Orlando, FL, pp. 440 - 445, December 8 - 10, 1982.
- “An Alternative to Minimax for Designing Binary Decision Rules,” (with Bruce H. Krogh). *Proceedings of the 21st IEEE Conference on Decision and Control*, Orlando, FL, pp. 680 - 685, December 8 - 10, 1982.
- *“Distance Measures in Robustness,” *Abstracts of Papers: 1982 IEEE International Symposium on Information Theory*, Les Arcs, France, pp. 73 - 74, June 21 - 25, 1982.
- *“A Survey on Robust Filtering,” (with Saleem A. Kassam). *Abstracts of Papers: 1982 IEEE International Symposium on Information Theory* Les Arcs, France, p. 73, June 21 - 25, 1982.
- “General Results on Minimax Robust Filtering,” (with Sergio Verdú). *Abstracts of Papers: 1982 IEEE International Symposium on Information Theory*, Les Arcs, France, p. 124, June 21 - 25, 1982.
- “Minimax Control of Linear Stochastic Systems with Noise Uncertainty,” (with Douglas P. Looze, Kenneth S. Vastola and John C. Darragh). *Proceedings of the 1982 American Control Conference*, Arlington, VA, pp. 689 - 693, June 1982.
- “A General Approach to Estimation and Control of Linear Systems with Uncertain Statistics,” (with Sergio Verdú). *Proceedings of the Sixteenth Annual Conference on Information Sciences and Systems*, Princeton University, Princeton, NJ, pp. 330 - 335, March 17 - 19, 1982.
- “Robust Hypothesis Testing for Observed Poisson Processes with Uncertain Rate Functions,” (with Evaggelos A. Geraniotis). *Proceedings of the 1982 Annual Conference on Information Sciences and Systems*, Princeton University, Princeton, NJ, pp. 320 - 322, March 17 - 19, 1982.
- “Minimax Filtering Problems for Observed Poisson Processes with Uncertain Rate Functions,” (with Evaggelos A. Geraniotis). *Proceedings of the 20th IEEE Conference on Decision and Control*, San Diego, CA, pp. 600 - 606, December 16 - 18, 1981.
- “Least Favorable Signals and Noise for Discrete-Time Robust Matched Filtering,” (with Sergio Verdú). *Proceedings of the 1982 IEEE National Telecommunications Conference, Conference Record*, New Orleans, LA, pp. D8.2.1 - D8.2.5, November 29 - December 3, 1981.
- “On Linear-Quadratic-Gaussian Control of Systems with Uncertain Statistics,” (with Douglas P. Looze, Kenneth S. Vastola and John C. Darragh). *Proceedings of the 10th IFIP Conference on System Modeling and Optimization*, New York, NY, August 31 - September 3, 1981. (Published by Springer-Verlag: Berlin, 1982).
- *“On an Aspect of Linear Correction Terms for Nonlinear Detection Systems,” (with Donald R. Halverson and Gary L. Wise). *Proceedings of the 24th Midwest Symposium on Circuits and Systems*, Albuquerque, NM, pp. 356 - 360, June 1981.
- “Robust Linear Estimation of Stationary Discrete-Time Signals,” (with Kenneth S. Vastola). *Proceedings of the 1981 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 512 - 516, March 25 - 27, 1981.
- “On the Performance of Memoryless Detection Systems Relative to Systems with Memory,” (with Chein-I Chang). *Proceedings of the 1981 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 140 - 146, March 25 - 27, 1981.
- “On Choquet Capacities and their Derivatives with Respect to σ -finite Measures,” (with Kenneth S. Vastola). *Abstracts of Papers: 1981 IEEE International Symposium on Information Theory*, Santa Monica, CA, p. 91, February 9 - 12, 1981.

- “The Rate-Distortion Function on Classes of Sources Determined by Spectral Capacities,” *Abstracts of Papers: 1981 IEEE International Symposium on Information Theory*, Santa Monica, CA, pp. 52 - 53, February 9 - 12, 1981.
- “Minimax State Estimation for Linear Stochastic Systems with Noise Uncertainty,” (with Douglas P. Looze). *Proceedings of the 19th IEEE Conference on Decision and Control*, Albuquerque, NM, pp. 1020 - 1025, December 10 - 12, 1980.
- *“Performance Analysis of Robust Filtering Schemes,” (with Kenneth S. Vastola). *Proceedings of the 23rd Midwest Symposium on Circuits and Systems*, Toledo, OH, pp. 259 - 263, August 4 - 5, 1980
- *“On Binary Communication through a Distorting Channel,” *Proceedings of the 12th Southeastern Symposium on System Theory*, Virginia Beach, VA, pp. 302 - 306, May 19 - 20, 1980.
- “Stochastic Convergence under Nonlinear Transformations on Metric Spaces,” (with Gary L. Wise). *Proceedings of the 1980 Conference on Information Sciences and Systems*, Princeton University, Princeton, NJ, pp. 431 - 435, March 26 - 28, 1980.
- “On Generalized Band Models in Robust Detection and Filtering,” (with Kenneth S. Vastola). *Proceedings of the 1980 Conference on Information Sciences and Systems*, Princeton University, Princeton, NJ, pp. 1 - 5, March 26 - 28, 1980.
- *“Further Results in Robust Wiener Filtering,” *Proceedings of the 18th IEEE Conference on Decision and Control*, pp. 494 - 499, Ft. Lauderdale, FL, December 12 - 14, 1979.
- “Optimum Memoryless Systems for Signal Detection with Dependent Data,” *Abstracts of Papers: 1979 IEEE International Symposium on Information Theory*, Grignano, Italy, pp. 88 - 89, June 25 - 29, 1979.
- *“A General Approach to Robust Matched Filtering,” *Proceedings of the 22nd Midwest Symposium on Circuits and Systems*, Philadelphia, PA, pp. 514 - 518, June 17 - 19, 1979.
- “Data Quantization in Stochastic-Signal Detection Systems,” (with Dimitrios Alexandrou). *Proceedings of the 1979 IEEE International Conference on Communications*, Boston, MA, pp. 7.3.1 - 7.3.6, June 10 - 13, 1979.
- “On Detection in Weakly Dependent Noise,” *Proceedings of the 1979 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 499 - 504, March 28 - 30, 1979.
- “A Comparison of Some Robust Detectors for Stochastic Signals,” (with Mohamed Mami). *Proceedings of the 1979 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 380 - 386, March 28 - 30, 1979.
- “Some Results in Robust Wiener Filtering,” *Proceedings of the 17th IEEE Conference on Decision and Control*, San Diego, CA, pp. 725 - 730, January 10 - 12, 1979.
- “Optimum Quantization for Memoryless Detection in m -Dependent Noise,” (with John B. Thomas). *Proceedings of the 1978 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 250 - 255, March 29 - 31, 1978.
- “A Robustness Property of Signal-to-Noise Ratios,” *Proceedings of the 1978 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 1 - 6, March 29 - 31, 1978.
- “Optimum Data Quantization for a General Signal Detection Problem,” (with John B. Thomas). *Proceedings of the 11th Annual Asilomar Conference on Circuits, Systems, and Computers*, Pacific Grove, CA, pp. 299 - 303, November 7 - 9, 1977.
- *“Robust Detection of Stochastic Signals,” (with John B. Thomas). *Proceedings of the 15th Annual Allerton Conference on Communication, Control, and Computing*, Monticello, IL, pp. 507 - 516, September 28 - 30, 1977.
- *“Asymptotically Optimum Zero-Memory Detectors for m -Dependent Noise Processes,” (with John B. Thomas). *Proceedings of the 1977 Conference on Information Sciences and Systems*, The Johns Hopkins University, Baltimore, MD, pp. 134 - 139, March 30 - April 1, 1977.
- “The Design of Robust Quantizer-Detectors for Signals in Additive, Contaminated Noise,” (with John B. Thomas). *Proceedings of the 10th Annual Asilomar Conference on Circuits, Systems, and Computers*, Pacific Grove, CA, pp. 83 - 87, November 1976.

- *“Maximum-Distance Quantization for Detection,” (with John B. Thomas). *Proceedings of the 14th Annual Allerton Conference on Circuit and System Theory*, Monticello, IL, pp. 925 - 934, September 29 - October 1, 1976.
- “Local Detection of Stochastic Signals in Additive Noise,” (with John B. Thomas). *Proceedings of the 14th Annual Allerton Conference on Circuit and System Theory*, Monticello, IL, pp. 432 - 440, September 29 - October 1, 1976.
- “Frequency Agility to Reduce Radar Multipath Angular Pointing Errors,” (with David G. Burks, Zeb L. Burrell, III, and Edward R. Graf). *Proceedings of the 1974 Spring Meeting of the International Scientific Radio Union (URSI)*, Atlanta, GA, June 1974.
- “A Model for Rainfall Attenuation,” (with David G. Burks and Edward R. Graf). *Proceedings of the Fiftieth Annual Meeting of the Alabama Academy of Science*, Huntsville, AL, April 1973.

Other (Asterisks Denote Invited Items):

- “Guest Editorial: Communication-Efficient Distributed Learning over Networks,” (with Xuanyu Cao, Tamer Basar, Suhas Diggavi, Yonina C. Eldar, Khaled B. Letaief and Junshan Zhang). *IEEE Journal on Selected Areas in Communications*, Vol. 41, No. 4, pp. 845 - 850, April 2023.
- “Guest Editorial: Information Theoretic Methods for Future Communication Systems, (with Onur Günlü, Rafael F. Schaefer and Holger Boche). *Entropy*, Vol. 23, No. 3, Article 392, March 2023.
- “Guest Editorial: Distributed Learning Over Wireless Edge Networks - Part II,” (with Mingzhe Chen, Deniz Gündüz, IEEE, Kaibin Huang, Walid Saad, Mehdi Bennis and Aneta Vulgarakis Feljan). *IEEE Journal on Selected Areas in Communications*, Vol. 40, No. 2, pp. 445 - 448, February 2022.
- “Guest Editorial: Advanced Signal Processing for Local and Private 5G Networks,” (with Kyeong Jin Kim, Octavia A. Dobre, David López-Pérez, Petar Popovski, Theodoros A. Tsiftsis and Miaowen Wen). *IEEE Journal of Selected Topics in Signal Processing*, Vol. 16, No. 1, pp. 2 - 6, January 2022.
- “Guest Editorial: Distributed Learning Over Wireless Edge Networks - Part I,” (with Mingzhe Chen, Deniz Gündüz, IEEE, Kaibin Huang, Walid Saad, Mehdi Bennis and Aneta Vulgarakis Feljan). *IEEE Journal on Selected Areas in Communications*, Vol. 39, No. 12, pp. 3575 - 3578, December 2021.
- “Special Issue on Communications and Networking Approaches for Combating COVID-19,” (with Randall A. Berry, Zhu Han, Krishna Narayanan, H. Vincent Poor, Christos Verikoukis, Osman Yağan). *Journal of Communications and Networks*, Vol. 23, No. 5, pp. 309 - 313, October 2021.
- “Guest Editorial: Emerging Security Technologies for 6G,” (with Woon Hau Chin, Chua Yuen and Mark Beach). *IEEE Communications Standards Magazine*, Vol. 5, No. 3, pp. 62 - 63, September 2021.
- “The Future of Electric Power in the United States,” (with Granger Morgan, et al.). A consensus study report of the National Academies of Sciences, Engineering and Medicine, 2021.
- “Editorial: Issue on Privacy and Security of Information Systems,” (with Matthieu Bloch, Onur Günlü, Aylin Yener, Frédérique Oggier, Lalitha Sankar and Rafael F. Schaefer). *IEEE Journal on Selected Areas in Information Theory*, Vol. 2, No. 1, pp. 163 - 176, March 2021.
- “Guest Editorial: A Note on COVID-19 by Professor Vincent Poor,” *IET Smart Cities*, Vol. 2, No. 3, p. 105, September 2020.
- “Editorial - IEEE Access Special Section: Advances in Signal Processing for Non-Orthogonal Multiple Access,” (with Miaowen Wen, Zhiguo Ding, Ertuğrul Başar, Yuanwei Liu, Fuhui Zhou, Ioannis Krikididis and Mojtaba Vaezi). *IEEE Access*, IEEE Access, Vol. 8, pp. 149214 - 149219, 2020.
- “Guest Editorial: Special Issue on Low-Latency High-Reliability Communications for the IoT,” (with Zheng Ma, Ming Xiao, Yue Xiao, Zhibo Pang and Branka Vucetic). *IEEE Internet of Things Journal*, Vol. 6, No. 5, pp. pp. 7811 - 7815, October 2019.
- “Guest Editorial: Multimedia Economics for Future Networks: Theory, Methods and Applications,” (with Wen Ji, Wenwu Zhu, Christian Timmerer and Zhu Li). *IEEE Journal on Selected Areas in Communications*, Vol 37, No. 7, pp. 1473 - 1477, July 2019.
- “Introduction to the Issue on Machine Learning for Cognition in Radio Communications and Radar,” (with Silvija Kokalj-Filipovic, Maria Sabrina Greco, George Stantchev and Liang Xiao). *IEEE Journal on Selected Topics in Signal Processing*, Vol. 12, No. 1, pp. 3 - 5, February 2019.
- “Guest Editorial: Wireless Transmission of Information and Power - Part II,” (with Bruno Clerckx, Rui Zhang, Robert Schober, Derrick Wing Kwan Ng and Dong In Kim). *IEEE Journal on Selected Areas in Communications*, Vol. 37, No. 2, pp. 249 - 252, February 2019.
- “Guest Editorial: Wireless Transmission of Information and Power - Part I,” (with Bruno Clerckx, Rui Zhang, Robert Schober, Derrick Wing Kwan Ng and Dong In Kim). *IEEE Journal on Selected Areas in Communications*, Vol. 37, No. 1, pp. 1 - 3, January 2019.
- “Scanning the Issue: Foundations and Trends in Localization Technologies - Part II” (with Moe Z. Win, Michael Beuhrer, George Christikos and Andrea Conti). *Proceedings of the IEEE*, Vol. 106, No. 7, pp. 1132 - 1135, July 2018.
- “Scanning the Issue: Foundations and Trends in Localization Technologies - Part I,” (with Moe Z. Win, Michael Beuhrer, George Christikos and Andrea Conti). *Proceedings of the IEEE*, Vol. 106, No. 6, pp. 1019 - 1021, June 2018.

- “Challenges and Open Problems in Signal Processing: Panel Discussion Summary from ICASSP 2017,” (with Yonina C. Eldar, Alfred O. Hero III, Li Deng, Jeff Fessler, Jelena Kovačević and Steve Young). *IEEE Signal Processing Magazine*, Vol. 34, No. 6, pp. 8 - 23, November 2017.
- *“Claude Shannon: His Work and Its Legacy,” (with Michelle Effros). *European Mathematical Society Newsletter*, No. 103, pp. 29 - 34, March 2017.
- “Guest Editorial: Wireless Physical Layer Security - Part II,” (with Walid Saad, Xiangyun Zhou and Mérouane Debbah). *IEEE Communications Magazine*, Vol. 53, No. 12, p. 18, December 2015.
- “Guest Editorial: Heterogeneous Cloud Radio Access Networks,” (with Mugen Peng, Tony Q. S. Quek, Zhiguo Ding and Vincent Lau). *IEEE Wireless Communications*, Vol. 22, No. 3, pp. 12 - 13, June 2015.
- “Guest Editorial: Wireless Physical Layer Security - Part I,” (with Walid Saad, Xiangyun Zhou and Mérouane Debbah). *IEEE Communications Magazine*, Vol. 53, No. 6, p. 15, June 2015.
- *“Smart Grid: The Role of the Information Sciences” *The Bridge*, Vol. 111, No. 1, pp. 56 - 63, February 2015. [2016 APEX Award for Publication Excellence.]
- *“Reflections on Excellence in Research and Education in Signal Processing,” *IEEE Signal Processing Magazine*, Vol. 31, No. 6, pp. 138 - 140, November 2014.
- “Introduction to the Special Issue on Signal Processing for Social Networks,” (with Kwang-Cheng Chen, Vikram Krishnamurthy, Devavrat Shah and Patrick J. Wolfe). *IEEE Journal of Selected Topics in Signal Processing*, Vol. 8, No. 4, pp. 511 - 513, August 2014.
- “Guest Editorial: Mobile Social Networks,” (with Kwang-Cheng Chen and Ramjee Prasad). *IEEE Wireless Communications*, Vol. 21, No. 1, pp. 8 - 9, February 2014.
- “Guest Editorial: Signal Processing for Wireless Physical Layer Security,” (with Eduard Jorswieck, Lifeng Lai, Wing-Kin (Ken) Ma, Walid Saad and A. Lee Swindlehurst). *IEEE Journal on Selected Areas in Communications*, Vol. 31, No. 9, pp. 1657 - 1659, September 2013.
- “Editorial: Signal Processing for Cyber-Security and Privacy,” (with Mérouane Debbah, Kannan Ramchandran, Lalitha Sankar and Wade Trappe). *IEEE Signal Processing Magazine*, Vol. 30, No. 5, p. 15, September 2013.
- “Editorial: Special Issue of Green Radio,” (with Stephen McLaughlin, Jacques Palicot and Honggang Zhang). *EURASIP Journal on Wireless Communications and Networking*, 2013:21.
- “Guest Editorial: Special Issue on Broadband Mobile Communications at Very High Speeds,” (with Pingzhi Fan, P. Takis Mathiopoulos and Erdal Panayircı). *EURASIP Journal on Wireless Communications and Networking*, 2012:279.
- “Introduction to the Issue on Game Theory in Signal Processing” (with Eduard Jorswieck, Erik G. Larsson, Amir Leshem and Marco Luise). *IEEE Journal of Selected Topics in Signal Processing*, Vol. 6, No. 2, pp. 73 - 75, April 2012.
- “Guest Editorial: Game Theory in Wireless Communications,” (with Alireza Attar, Tamer Başar, Mérouane Debbah and Qing Zhao). *IEEE Journal on Selected Areas in Communications*, Vol. 30, No. 1, pp. 1 - 3, January 2012.
- “Guest Editorial: Special Issue on Using the Physical Layer for Securing the Next Generation of Communication Systems,” (with Wade Trappe, Aylin Yener, Hisato Iwai, Joao Barros and Paul Prucnal). *IEEE Transactions on Information Forensics and Security*, Vol. 6, No. 3, pp. 521 - 522, September 2011.
- *“ComSoc Awards: Recognizing Our Colleagues,” (with Byeong Gi Lee). *IEEE Communications Magazine*, Vol. 49, No. 6, pp. 6 - 8, June 2011.
- “Guest Editorial: Special Issue on Wireless Physical Layer Security,” (with Mérouane Debbah, Hesham El Gamal and Shlomo Shamai). *EURASIP Journal on Wireless Communications and Networking*, Vol. 2009.
- “Game Theory in Signal Processing and Communications,” (with Eduard Jorswieck, Erik G. Larsson and Marco Luise). *IEEE Signal Processing Magazine*, Vol. 26, No. 5, pp. 17 and 132, September 2009.
- “teaching it . . . to freshmen,” (with Lalitha Sankar). *IEEE Information Theory Society Newsletter*, Vol. 58, No. 3, pp. 8-9, September 2008.

- “Guest Editorial: Special Issue on Advances in Subspace-based Techniques for Signal Processing and Communications,” (with Kostas Berberidis, Benoit Champagne, George Moustakides, and Peter Stoica). *EURASIP Journal on Advanced Signal Processing*, Vol. 2007.
- *“Engineering as a Liberal Art: Taking a Broad View,” *The Bridge*, Spring 2007, pp. 12 - 13.
- “Guest Editorial: Power Line Communications,” (with Stefano Galli, Ezio Biglieri, Han Vinck, and Yong-Hwan Lee). *IEEE Journal on Selected Areas in Communications*, Vol. 24, No. 7, pp. 1261 - 1266, July 2006.
- “Review of *Linear Estimation* by Thomas Kailath, Babak Hassibi and Ali H. Sayed,” *IEEE Transactions on Information Theory*, Vol. 51, No. 6, pp. 2236 - 2240, June 2005.
- “Guest Editorial: MIMO Communications and Signal Processing,” (with Sergio Barbarossa, Constantinos Papadias, and Xiaowen Wang). *EURASIP Journal on Applied Signal Processing*, Vol. 2004, No. 5, pp. 587 - 590, May 2004.
- “Guest Editorial: Signal Processing for Wireless Communication Systems,” (with Lang Tong). *Journal of VLSI Signal Processing Systems*, Vol. 30, Nos. 1 - 3, pp. 5 - 6, March 2002.
- “Guest Editorial: Multiuser Detection Techniques with Application to Wired and Wireless Communication Systems II,” (with Giovanni Cherubini, John M. Cioffi and Alexandra Duel-Hallen). *IEEE Journal on Selected Areas in Communications*, Vol. 20, No. 2, pp. 233 - 236, February 2002.
- “Guest Editorial: Signal Processing for Multiuser Wireless Communications,” (with Alle-Jan van der Veen and Gregory W. Wornell). *Journal of Communications and Networks*, Vol. 3, No. 3, pp. 193 - 195, September 2001.
- “Guest Editorial: Multiuser Detection Techniques with Application to Wired and Wireless Communication Systems I,” (with Giovanni Cherubini, John M. Cioffi and Alexandra Duel-Hallen). *IEEE Journal on Selected Areas in Communications*, Vol. 19, No. 8, pp. 1425 - 1428, August 2001.
- “Guest Editorial: Software Radio,” (with Kwang-Cheng Chen and Ramjee Prasad). *IEEE Personal Communications*, Vol. 6, No. 4, p. 12, August 1999.
- “Guest Editorial: Code Division Multiple Access for Wireless Communication Systems,” (with Riccardo DeGaudenzi and Michael Honig). *European Transactions on Telecommunications*, Vol. 9, No. 4, pp. 323 - 324, July/Aug. 1998; and No. 5, pp. 401 - 402, Sept./Oct. 1998.
- “Mac and Communications,” in *Mac Van Valkenburg Memorial Volume*, (University of Illinois: Urbana, IL, 1998), pp. 103 - 110.
- “Review of *Detection of Abrupt Changes: Theory and Application* (M. Basseville and I. Nikiforov).” *Automatica*, Vol. 32, No. 8, pp. 1235 - 1236, August 1996.
- *“Signal Processing for Wideband Communications,” *IEEE Information Theory Society Newsletter*, Vol. 42, No. 2, pp. 1 - 10, June 1992.
- *“Discussion of ‘Influence Functionals for Time Series’,” *Annals of Statistics*, Vol. 14, No. 3, pp. 829 - 831, 1986.

Patents:

- “System and Method for Performing Initial Synchronization During Wireless Sector Searches,” (with Jia-Chin Lin and Yu-Ting Sun). U. S. Patent No. 10,523,488. Issued December 31, 2019.
- “System and Method for Disintegrated Channel Estimation in Wireless Networks,” (with Jia-Chin Lin and Kao-Peng Chou). U. S. Patent No. 10,298,418. Issued May 21, 2019.
- “System and Method for Pricing and Exchanging Content,” (with Mung Chiang and Hazer Inaltekin). U. S. Patent No. 10,055,739. Issued August 21, 2018.
- “System and Method for Securing Backscatter Wireless Communication,” (with Zhu Han and Walid Saad). U. S. Patent No. 9,672,394. Issued June 6, 2017.
- “Nonlinear Fourier Analysis in Optical Systems,” (with Sander Wahls). U. S. Patent No. 9,407,374. Issued August 2, 2016.
- “System and Method for Initial Ranging in Wireless Communication Systems,” (with Michele Morelli and Luca Sanguinetti). U. S. Patent No. 9,166,856. Issued October 20, 2015.
- “System and Method for Lossy Source-Channel Coding at the Application Layer,” (with Ozgan Bursalioğlu Yilmaz, Giuseppe Caire and Maria Fresia). U. S. Patent No. 9,131,238. Issued September 8, 2015.
- “System and Method for Synchronizing Phases and Frequencies of Devices in Multi-User, Wireless Communication Systems,” (with D. Richard Brown, III, and Boyang Zhang). U. S. Patent No. 9,042,367. Issued May 26, 2015.
- “System and Method for Synchronizing Phases and Frequencies of Devices in Multi-User, Wireless Communication Systems,” (with D. Richard Brown, III, and Boyang Zhang). U. S. Patent No. 8,634,405. Issued January 21, 2014.
- “System and Method for Initial Ranging in Wireless Communication Systems,” (with Michele Morelli and Luca Sanguinetti). U. S. Patent No. 8,254,242. Issued August 28, 2012.
- “System and Method for Blind Estimation of Multiple Carrier Frequency Offsets and Separation of User Signals in Wireless Communication Systems,” (with Visa Koivunen, et al.). U. S. Patent No. 7,929,937. Issued April 19, 2011.
- “Method and Apparatus for Regenerative Based Interference Cancellation Within a Communication System,” (with Alexander Flaig, et al.). U. S. Patent No. 7,697,594. Issued April 13, 2010. [Assigned to Texas Instruments.] [Also European Patent 1274177, granted May 11, 2015.]
- “Methods and Systems for Using Pulsed Radar for Communications Transparent to Radar Function,” (with David W. Meyers, et al.). U. S. Patent No. 7,486,221. Issued February 3, 2009. [Assigned to Honeywell.]
- “Method and System for Acquiring a Received Impulse Radio Signal,” (with Andreas Molisch, et al.). European Patent No. 1599982. Granted October 15, 2008. [Assigned to Mitsubishi.] [Also, Japanese Patent No. 4335913, granted July 3, 2009, and Chinese Patent No. ZL200480000177.6, granted April 28, 2010.]
- “Method, System and Apparatus for Acquiring a Received Impulse Radio Signal,” (with Andreas Molisch, et al.). European Patent No. 1599983. Granted August 20, 2008. [Assigned to Mitsubishi.] [Also, Japanese Patent No. 4335912, granted September 30, 2009, and Chinese Patent No. 100521667, granted July 29, 2009.]
- “Linear Receivers for Time-Hopping Impulse Radio Systems,” (with Sinan Gezici, et al.). U. S. Patent No. 7,349,458. Issued March 25, 2008. [Assigned to Mitsubishi.]
- “Method and System for Acquiring Ultra-Wide-Bandwidth Communications Signals Using Sequential Block Searches,” (with Andreas Molisch, et al.). U. S. Patent No. 7,292,619. Issued November 6, 2007. [Assigned to Mitsubishi.]
- “Method and System for Acquiring Ultra-Wide-Bandwidth Communications Signals Using Average Block Searches,” (with Andreas Molisch, et al.). U. S. Patent No. 7,164,720. Issued January 16, 2007. [Assigned to Mitsubishi.] [Also, Japanese Patent No. 4335913, granted September 30, 2009.]

- “Method and Apparatus for Received Uplinked-Signal Based Adaptive Downlink Diversity Within a Communication System,” (with Louis R. Brothers, Jr., et al.). U. S. Patent No. 7,095,987. Issued August 22, 2006. [Assigned to Texas Instruments.]
- “Method and Apparatus for Scheduling of Switched Multibeam Antennas in a Multiple Access Environment,” (with Andrew Logothetis). U. S. Patent No. 6,968,022. Issued November 22, 2005.
- “Method and Apparatus for High-Resolution Tracking Via Mono-Pulse Beam-Forming in a Communication System,” (with Louis R. Brothers, Jr., et al.). U. S. Patent No. 6,930,637. Issued August 16, 2005. [Assigned to Texas Instruments.]

Ph.D. THESES SUPERVISED:

Princeton University:

- Inference of Cascades and Correlated Networks* (2023), by Anirudh Sridhar (now with the Massachusetts Institute of Technology; co-supervised with Miklós Rácz)
- Machine Learning and Optimization with Latent Variables* (2023), by Yanxi Chen (now with Alibaba, Hangzhou, China; co-supervised with Yuxin Chen)
- Topics in Machine Learning* (2022), by Andy Su (now with Apple, Cupertino, CA; co-supervised with John Mulvey)
- Methods Toward the Design of Estimation and Control for Networked Multiagent Systems* (2022), by Anthony J. Savas (co-supervised with Naomi Leonard)
- Topics in Information and Estimation Theory: Parameter Estimation, Lossless Compression, Constrained Channels, and Error Exponents* (2021), by Semih Yagli (now with Walmart Labs, Hoboken, NJ)
- Efficient Estimation and Inference in Nonconvex Low-Complexity Models* (2021), by Changxiao Cai (now with the University of Pennsylvania; co-supervised with Yuxin Chen)
- A New Approach to Lossy Compression and Applications to Security* (2015), by Eva Song (now with FutureWei Technologies, Bridgewater, NJ; co-supervised with Paul Cuff)
- New Approaches to Reconstructing Geometric Models From Noisy Measurements* (2012), by Jieqi Yu (now with Facebook, Menlo Park, CA; co-supervised with Sanjeev Kulkarni)
- Topics in Probabilistic Judgment Aggregation* (2011), by Arvid Wang (now with Baidu, Beijing, China; co-supervised with Sanjeev Kulkarni)
- Distributed Learning: Regression on Attribute-Distributed Data and Consensus Clustering* (2011), by Haiping Zheng (now with Virtu Financial; co-supervised with Sanjeev Kulkarni)
- Channel Coding: Non-Asymptotic Fundamental Limits* (2010), by Yury Polyanskiy (now with the Massachusetts Institute of Technology; co-supervised with Sergio Verdú)
- Stochastic Network Utility Maximization: Modeling, Analysis and Applications* (2009), by Jiaping Liu (now an attorney with Haynes Boone, San Francisco, CA; co-supervised with Mung Chiang)
- Energy Efficient Communication in Wireless Networks* (2008), by Sharon M. Betz (now with Mitre Corporation, McLean, VA)
- Topics in Distributed Inference* (2006), by Joel B. Predd (now with the RAND Corporation, Pittsburgh, PA; co-supervised with Sanjeev Kulkarni)
- Game Theoretic Approaches to Energy-Efficient Radio Resource Management in Multiple-Access Networks* (2006), by Farhad Meshkati (now with Qualcomm Corporation, San Diego, CA; co-supervised with Stuart C. Schwartz)
- Design and Analysis of Impulse Radio Ultra Wideband Receivers for Communications and Geolocation* (2006), by Sinan Gezici (now with Bilkent University, Ankara, Turkey; co-supervised with Hisashi Kobayashi)
- Side Information in Bandit Problems and Low-Density Parity-Check Codes for Non-Symmetric Channels* (2005), by Chih-Chun Wang (now with Purdue University; co-supervised with Sanjeev Kulkarni)
- Performance Analysis of Multiuser Detection Based Receivers in Fading CDMA Channels* (2005), by Husheng Li (now with the University of Tennessee)
- Topics in Stochastic Processes and Their Applications* (2004), by Erhan Bayraktar (now with the University of Michigan (Mathematics))
- Non-Coherent Fading Channels: Spectral Efficiency and Efficient Signaling* (2004), by Mustafa Gursoy (now with Syracuse University; co-supervised with Sergio Verdú)
- Affine and Quadratic Markov Processes and Their Applications in Finance* (2004), by Li Chen (now with Merrill Lynch, New York, NY)
- Time-Frequency and Time-Scale Representations of Doubly Spread Channels* (2003), by Scott Rickard (now with Citadel, Chicago, IL; co-supervised with Sergio Verdú)

Multi-Antenna Wireless Communication Systems: Capacity, Coding and Receiver Design (2003), by Sudharman K. Jayaweera (now with the University of New Mexico)

Capacity and Coverage of Two-Tier Cellular CDMA Networks (2003), by Shaline Kishore (now with Lehigh University; co-supervised with Stuart Schwartz)

Topics in DS/CDMA Systems (2002), by Yingwei Yao (now with the University of Florida)

Signal Detection in Multiaccess Quantum Channels (2002), by Julio Ignacio Concha (now with Pragma Securities, New York, NY)

Wireless Cellular Communications with Antenna Arrays (2002), by Huaiyu Dai (now with North Carolina State University)

Multi-Alternative Online Change Detection with Applications in Wireless Communications (2001), by Taragay Oskiper (now with SRI International, Princeton, NJ)

Rate Scheduling Techniques and Delay Quality of Service Guarantees for Heterogeneous Networks (2001), by Aikaterini Varsou (now with Sound View Innovations, Parsippany, NJ)

The Linear Structure of Self-Similar Processes (2000), by Carl Jeremy Nuzman (now with the Mathematics Research Center, Nokia Bell Labs, Murray Hill, NJ)

Topics in Multiuser Detection (1998), by Xiaodong Wang (now with Columbia University)

Statistical Models for Rapidly Sampled Data (1997), by Lih-Huah Yiin (now with KAL Instruments, San Jose, CA)

Finite-field Wavelet Transforms and Error Control Coding (1996), by Sandip Sarkar (now with Capgemini, San Diego, CA)

Multiuser Detection for Radio-frequency and Optical Code-division Multiple Access Channels (1995), by Laurie B. Nelson (now with the IDA Center for Communications Research, Princeton, NJ)

Interference Suppression in Spread Spectrum Code Division Multiple Access Communications (1994), by Leslie Ann Rusch (now with Université Laval, Québec City, Canada)

Adaptive Multi-user Detection (1994), by Urbashi Mitra (now with the University of Southern California)

University of Illinois:

Topics in Decentralized Detection (1992), by Venugopal V. Veeravalli (now with the University of Illinois at Urbana-Champaign; co-supervised with Tamer Başar)

Difference-Operator-Based Models in Statistical Signal Processing (1991), by Rajiv Vijayan (now with Qualcomm Corporation, San Diego, CA)

Identification of Impulsive Interference Channels (1989), by Serena M. Zabin (formerly with the Georgia Institute of Technology)

Signal Detection in Fractional Gaussian Noise and an RKHS Approach to Robust Detection and Estimation (1988), by Richard J. Barton (formerly with the NASA Johnson Space Center, Houston, TX)

Performance Analysis of DS/SSMA Communications in Impulsive Channels (1986), by Behnaam Aazhang (now with Rice University)

Optimum Multi-user Signal Detection (1984), by Sergio Verdú (formerly with Princeton University)

Topics in Robust Statistical Signal Processing (1982), by Kenneth Steven Vastola (formerly with the Rensselaer Polytechnic Institute)

POST-DOCTORAL STUDENTS (Asterisks Denote Current Postdocs):

*Arman Adibi (University of Pennsylvania)
*Karl-Ludwig Besser (Technical University of Braunschweig)
*Hao Huang (Texas A&M University)
*Homa Nikbakth (Telecom Paris)
*Eric Ruzomberka (Purdue University)
*Mohamed Seif (University of Arizona)
*Henry Wang (Purdue University)
*Sadaf ul Zuhra (Indian Institute of Technology Bombay)
*Shuhao Zheng (Peking University)
Lina Al-Kanj (American University of Beirut, Lebanon; now with Princeton University)
Yücel Altuğ (Cornell University; now with Natera, Inc., San Carlos, CA)
Gayan Amarasuriya (University of Alberta; now with Southern Illinois University)
Mohammad Amiri (Imperial College; now with the Rensselaer Polytechnic Institute)
Ahmed Arafa (University of Maryland; now with the University of North Carolina, Charlotte)
Giacomo Bacci (University of Pisa, Italy; now with MBI, Pisa)
Leighton Barnes (Stanford University; now with the IDA Center for Communications Research)
Elena-Veronica Belmega (SUPÉLEC, France; now with ESIEE Paris)
Swapna Buccapatnam (Ohio State University; now with AT&T Labs Research)
Ronit Bustin (the Technion, Israel; now with the GM Advanced Technical Center, Herzliya, Israel)
Stefano Buzzi (University of Naples, Italy; now with University of Cassino, Italy)
Lin Cai (University of Waterloo, Canada; now with the Illinois Institute of Technology)
Xuanyu Cao (University of Maryland; now with Washington State University)
Catharina Carlemalm (Royal Inst.Technology, Stockholm; now with Uppsala University, Sweden)
Mingzhe Chen (Beijing University of Posts and Telecommunications; now with the University of Miami)
Yuzhou Chen (Southern Methodist University; now with Temple University)
Wei-Yu (Toro) Chiu (National Tsing Hua University, Taiwan; now with National Tsing Hua University)
Arsenia Chorti (Imperial College, London; now with ENSEA, Clergy, France)
Cristina Comaniciu (Rutgers University; now with Stevens Institute of Technology)
Daniel Cullina (University of Illinois at Urbana-Champaign; now with Penn State University)
Huaiyu Dai (Princeton University; now with North Carolina State University)
José Mairton Barros Da Silva (KTH; now with Uppsala University, Sweden)
Alex Dytso (University of Illinois at Chicago; now with NJIT)
Salim ElRouayheb (Texas A & M University; now with Rutgers University)
Iñaki Esnaola (University of Delaware; now with Sheffield University, UK)
Seyed Rasoul Etesami (University of Illinois at Urbana-Champaign; now with UIUC)
Yijia (Richard) Fan (Edinburgh University; now with Askers.com, New York, NY)
Michael Fauß (Technical University of Darmstadt; now with ETS, Princeton, NJ)
Eran Fishler (Tel Aviv University, Israel; now with Pragma Securities, New York, NY)
Maria Fresia (University of Genoa; now with Huawei Deutschland)
Hana Godrich (New Jersey Institute of Technology; now with Rutgers University)

Mario Goldenbaum (Technical University of Munich; now with Bremen University of Applied Sciences)

Deniz Gündüz (Polytechnic University; now with Imperial College, London)

Olympia Hadjiliadis (Columbia University; now with CUNY)

Timothy Holliday (Stanford University; now with Goldman, Sachs, New York, NY)

Hazer Inaltekin (Cornell University; now with Melbourne University, Australia)

Shirin Jalali (Stanford University; now with Bell Labs, Murray Hill, NJ)

Hai Jiang (University of Waterloo, Canada; now with University of Alberta, Canada)

Soumya Kar (Carnegie-Mellon University; now with Carnegie-Melon University)

Jin-Young Kim (Seoul National University, Korea; now with Kwangoon University, Korea)

Suk-Chan Kim (KAIST, Korea; now with Pusan National University, Korea)

Tùng Kim (Royal Institute of Technology, Stockholm; now with Morgan Stanley, New York)

Vahid Kooshkghazi (University of Erlangen-Nuremberg; now with the Technical University of Darmstadt)

Subhash Lakshminarayana (Ecole Supérieure d'Électricité (SUPÉLEC); now with the University of Warwick)

Lifeng Lai (Ohio State University; now with the University of California, Davis)

Andrew Lan (Rice University; now with the University of Massachusetts)

Chris Leberknight (New Jersey Institute of Technology; now with William Paterson University)

Yingbin (Grace) Liang (UIUC; now with the Ohio State University)

Ruoheng Liu (Rutgers University; now with Qualcomm Corporation, San Diego, CA)

Tang Liu (University of Illinois, Chicago; now with NJIT)

Zhenming Liu (Harvard University; now with Two Sigma Securities, New York, NY)

Andrew Logothetis (Univ. Melbourne, Australia; now with Airspan Communications, Southall, UK)

Jarmo Lundén (Aalto University, Helsinki, Finland; now with Aalto University)

Shaodan Ma (Hong Kong University; now with the University of Macau)

Ninoslav Marina (EPFL, Switzerland; now with University of Science & Technology, Ohrid, Macedonia)

Robert Mieth (Technical University of Berlin; now with Rutgers University)

Soheil Mohajer (EPFL, Switzerland; now with the University of Minnesota)

Hung Nguyen (Virginia Commonwealth University; now with Google, Inc.)

Esa Ollila (Aalto University, Helsinki, Finland; now with Aalto University)

Samir Medina Perlaza (École Nationale Supérieure des Télécommunications, Paris; now with INRIA, Sophia Antipolis, France)

Man-Ho (Simon) Pun (USC; now with the Chinese University of Hong Kong, Shenzhen)

David Ramirez (Rice University; now with DOCOMO Innovations)

Walid Saad (University of Oslo, Norway; now with Virginia Tech)

Luca Sanguinetti (University of Pisa, Italy; now with the University of Pisa)

Lalitha Sankar (Rutgers University; now with Arizona State University)

Rafael Schaefer (Technical University of Munich; now with the Technical University of Dresden, Germany)

Benjamin Schaffer (Princeton University)

Xiaohu Shang (Syracuse University; now with PebblePost, New York, NY)

Wonjae Shin (Seoul National University; now with Ajou University, Korea)

Yanina Shkel (University of Wisconsin; now with EFPL, Switzerland)

Dmitriy Shutin (TU Graz, Austria; now with the DLR Institute of Communications & Navigation, Munich)

Saleh Soltan (Columbia University; now with Amazon)

Oren Somekh (the Technion, Israel; now with Yahoo! Research, Israel)

Yossef Steinberg (Tel Aviv University, Israel; now with the Technion)

Brian Swenson (Carnegie-Mellon University; now with Penn State University)

Hongjian Sun (University of Edinburgh; now with Durham University)

Mahmoud Taherzadeh (University of Waterloo, Canada; now with Ciena Corporation)

Ali Tajer (Columbia University; now with Rensselaer Polytechnic Institute)

Ravi Tandon (University of Maryland; now with the University of Arizona)

Nima Tavangaran (Technical University of Munich)

Mojtaba Vaezi (McGill University; now with Villanova University)

Sander Wahls (Technical University of Berlin; now with Karlsruhe Institute of Technology)

Chih-Chun Wang (Princeton University; now with Purdue University)

Lei Yang (Arizona State University, joint with Arizona State; now with the University of Nevada Reno)

Reeves Yang (Drexel University; now with Silicon Motion Technology)

Wei Yang (Chalmers University of Technology, Sweden; now with Qualcomm, San Diego, CA)

Brent Yen (MIT; now with the National University of Singapore)

Hongliang Zhang (Peking University; now with Peking University)

Xin Zhang (University of Connecticut; now with Aquilla Network Technologies, Inc., Shanghai (founder))

Yue Zhao (UCLA, joint with Stanford University; now with Stony Brook University)