

Call for Papers for Communication Theory Symposium

Symposium Co-Chairs

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Submissions must be done through EDAS at <http://edas.info/N20747>

Scope and Motivation

The Communication Theory Symposium will focus on the fundamentals of communication systems, with emphasis on wireless and wired communications. The symposium welcomes original and innovative research work in these general areas, focusing on the physical layer and its interactions with higher layers. High quality papers reporting on applications of communications theory from both industry and academia are encouraged.

Main Topics of Interest

To ensure complete coverage of the advances in this field, the Communication Theory Symposium cordially invites original contributions in, but not limited to, the following topical areas:

- Adaptive Modulation and Coding
- CDMA and Spread Spectrum
- Channel Estimation and Synchronization
- Coding Theory
- Communication Theory Aspects of Ad Hoc and Sensor Networks
- Theory Aspects of Cooperative Communications
- Communication Theory for Cross Layer Design
- Detection and Estimation Theory
- Distributed Coding and Processing
- Diversity and Fading Countermeasures
- Energy Efficient Communication
- Feedback in Communication Systems
- Fundamentals of Heterogeneous and Small-Cell Networks
- Fiber Optical Communications and Free-Space Optical Communications
- Information Theory and Channel Capacity
- Theory Aspects of Interference Characterization and Applications of Stochastic Geometry
- Theory Aspects of Interference Management, Cancellation, Alignment, and Avoidance
- Iterative Techniques, Detection and Decoding
- Joint Source/Channel Coding
- Multiple Access Techniques
- Theory Aspects of Multiple-Input Multiple-Output (MIMO) Communications
- Multiuser Diversity
- Network Coding
- Network and Multiuser Information Theory
- Orthogonal Frequency Division Multiplexing (OFDM) and Multi-Carrier Systems
- Radio Resource Management and Scheduling
- Source Coding and Data Compression
- Space-time Coding and Processing
- Theoretical Aspects of Cognitive Radio

- Theoretical Aspects of Device-to-Device and Machine-to-Machine communications
- Theoretical Aspects of Power Line Communication
- Ultra-Wideband, Millimeter Wave, and Sub-Terahertz Communication Theory
- Wireless Communications Powered by Energy Harvesting

Co-Chairs Biographies

Marco Chiani received the Ph.D. degree in electronic and computer engineering from the University of Bologna, Italy, in 1993, where he is currently a Full Professor in Telecommunications. Since 2003 he has been a frequent visitor at the Massachusetts Institute of Technology (MIT), Cambridge, where he presently holds a Research Affiliate appointment. His research interests are in the areas of wireless systems and communications theory, including MIMO statistical analysis, codes on graphs, wireless multimedia, cognitive radio techniques, and ultra-wideband radios. He received the 2011 IEEE Communications Society Leonard G. Abraham Prize in the Field of Communications Systems, the 2012 IEEE Communications Society Fred W. Ellersick Prize, and the 2012 IEEE Communications Society Stephen O. Rice Prize in the Field of Communications Theory. He is the past chair (2002–2004) of the Radio Communications Committee of the IEEE Communication Society and past Editor of *Wireless Communication* (2000–2007) for the journal *IEEE Transactions on Communications*. In 2012 he has been appointed Distinguished Visiting Fellow of the Royal Academy of Engineering, UK. He is a Fellow of the IEEE, named for “Contributions to wireless communication systems”.

Marios Kountouris received the Diploma in Electrical and Computer Engineering from the National Technical University of Athens, Greece in 2002 and the M.S. and Ph.D. degrees in Electrical Engineering from the Ecole Nationale Supérieure des Télécommunications (Télécom ParisTech), France in 2004 and 2008, respectively. His doctoral research was carried out at Eurecom Institute, France, and it was funded by Orange Labs, France. From February 2008 to May 2009, he has been with the Department of ECE at The University of Texas at Austin as a research associate, working on wireless ad hoc networks under DARPA’s IT-MANET program. From June 2009 to December 2013, he has been an Assistant Professor at the Department of Telecommunications at Supélec (CentraleSupélec since 2015), France, where he is currently an Associate Professor. From March 2014 to February 2015, he has been an Adjunct Professor in the School of EEE at Yonsei University, S. Korea. Since January 2015, he has been a Principal Researcher at the Mathematical and Algorithmic Sciences Lab, Huawei Technologies, France. He is currently an Editor for the *IEEE Transactions on Wireless Communications*, the *EURASIP Journal on Wireless Communications and Networking*, and the *Journal of Communications and Networks (JCN)*. He is also a founding member and Vice Chair of IEEE SIG on Green Cellular Networks. He received the 2013 IEEE ComSoc Outstanding Young Researcher Award for the EMEA Region, the 2014 EURASIP Best Paper Award for *EURASIP Journal on Advances in Signal Processing (JASP)*, the 2012 IEEE SPS Signal Processing Magazine Award, the IEEE SPAWC 2013 Best Student Paper Award, and the Best Paper Award in Communication Theory Symposium at IEEE Globecom 2009. He is a Senior Member of the IEEE and a Professional Engineer of the Technical Chamber of Greece.

Xu Zhu received the BEng degree with the first class honors in Electronics and Information Engineering from Huazhong University of Science and Technology, Wuhan, China, in 1999, and the PhD degree in Electrical and Electronic Engineering from the Hong Kong University of Science and Technology, Hong Kong, in 2003. Since May 2003, she has been with the Department of Electrical Engineering and Electronics, the University of Liverpool, Liverpool, UK, where she is currently a Senior Lecturer. Dr. Zhu has over 120 peer-reviewed publications on communications and signal processing. Her research interests include MIMO, equalization, resource allocation, cognitive radio, smart grid communications etc. She is an Editor for the *IEEE Transactions on Wireless Communications*, and has served as a Guest Editor for three international journals such as *Computer Science and Information Systems*. She was Vice Chair of the 2006 and 2008 ICARN International Workshops, Program Chair of the ICSAI 2012, and Publication Chair of the IEEE IUCC-2012 and IUCC-2014. She is a Senior Member of the IEEE.