

**FORTY-FIFTH
ASILOMAR CONFERENCE ON
SIGNALS, SYSTEMS AND
COMPUTERS**



November 6–9, 2011
Asilomar Hotel and
Conference Grounds

Technical Co-sponsor

IEEE
Signal Processing Society  ®

FORTY-FIFTH ASILOMAR CONFERENCE ON SIGNALS, SYSTEMS & COMPUTERS

Organized in cooperation with

NAVAL POSTGRADUATE SCHOOL
Monterey, California

ATK SPACE SYSTEMS
Monterey, California

and technical co-sponsor

IEEE SIGNAL PROCESSING SOCIETY

CONFERENCE COMMITTEE

General Chairman

Dr. James Schroeder
Harris Government
Communication Systems
Cove Technology Center
Melbourne, FL 32903-0017
E-mail: jim.schroeder@harris.com

Conference Coordinator

Prof. Monique P. Fargues
Department of Electrical &
Computer Engineering
Naval Postgraduate School
Monterey, CA 93943
E-mail: fargues@nps.edu

Technical Program Chairman

Prof. Robert W. Heath, Jr.
Wireless Networking and
Communications Group
Department of Electrical and
Computer Engineering
The University of Texas at Austin
Austin, TX
E-mail: rheath@ece.utexas.edu

Finance Chairman

Associate Prof. Frank Kragh
Department of Electrical &
Computer Engineering
Naval Postgraduate School
Monterey, CA 93943-5121
E-mail: fekragh@nps.edu

Publicity Chairman (Acting)

Prof. Linda DeBrunner
Department of Electrical &
Computer Engineering
Florida State University
Tallahassee, FL 32310-6046
E-mail:
Linda.debrunner@eng.fsu.edu

Publication Chairman

Dr. Michael B. Matthews
ATK Space Systems
10 Ragsdale Drive, Suite 201
Monterey, CA 93940
E-mail:
michael.matthews@atk.com

Welcome from the General Chairman

Dr. Jim Schroeder, Harris Corporation, Melbourne, Florida

I am very pleased to welcome you to the 45th Asilomar Conference on Signals, Systems and Computers. I personally attended my first Asilomar Conference in 1988, October 31st to November 2nd; the Asilomar State Park's beautiful and relaxing venue, complemented by the intellectual stimulation provided by the conference attendees, has kept me returning year after year.

A continuing strength of Asilomar is the wide cross section of researchers who come from traditional academic institutions, including esteemed faculty and their graduate students, Federal R&D Laboratories and Corporate Research centers, enables an unmatched synergy unique to Asilomar.

This year's Sydney Parker Memorial Lecture will be presented by Prof. Jose Principe, University of Florida, Gainesville, titled, "Machine Learning in Signal Processing." Jose Principe is a Distinguished Professor of Electrical and Computer Engineering and Biomedical Engineering at the University of Florida where he teaches advanced signal processing, machine learning and artificial neural networks (ANNs) modeling. He is the BellSouth Professor and the Founder and Director of the University of Florida Computational NeuroEngineering Laboratory (CNEL) www.cnel.ufl.edu . His primary area of interest is the processing of time varying signals with adaptive neural models. The CNEL Lab has been studying signal and pattern recognition principles based on information theoretic criteria (entropy and mutual information).

The popular and successful student paper contest will be chaired this year by Dr. Oscar Gustafsson, Linkoping University, Sweden. The student finalists have been selected to present their papers to the panel judges Sunday afternoon. The top three paper winners will receive their awards at the beginning of the conference plenary session.

It is a privilege and honor to serve as this year's General Chair. I personally invite you to enjoy Asilomar to its fullest from the Plenary Talk, Student Poster Sessions, oral and poster sessions and colorful sunsets on the beach.

Jim Schroeder, Harris Corporation, May 2011

Conference Steering Committee

PROF. MONIQUE P. FARGUES

Acting Chair & Conference Coordinator
Dept. of Electrical & Computer Eng.
833 Dyer Road, Room 437, Code EC/Fa
Naval Postgraduate School
Monterey, CA 93943-5121

PROF. SHERIFF MICHAEL

Secretary
Dept. of Electrical & Computer Eng.
833 Dyer Road, Room 437, Code EC/Mi
Naval Postgraduate School
Monterey, CA 93943-5121

ASSOC. PROF. FRANK KRAGH

Treasurer
Dept. of Electrical & Computer Eng.
833 Dyer Road, Room 437, Code EC/Kr
Naval Postgraduate School
Monterey, CA 93943-5121

PROF. SCOTT ACTON

Dept. Electrical & Computer
Engineering
University of Virginia
P.O. Box 400743
Charlottesville, VA 22904-4743

PROF. VICTOR E. DEBRUNNER

Dept. of Electrical & Computer
Engineering
Florida State University
2525 Pottsdamer Street
Tallahassee, FL 32310-6046

PROF. MILOS ERCEGOVAC

Computer Science Department
University of California, Los Angeles
Los Angeles, CA 90095

PROF. BENJAMIN FRIEDLANDER

Dept. of Electrical & Computer Eng.
Room 119, Jack Baskin Engineering Bldg.
University of California, Santa Cruz
Santa Cruz, CA 95064

PROF. frederic j. harris

Dept. of Electrical Engineering
San Diego State University
San Diego, CA 92115

PROF. RALPH D. HIPPENSTIEL

Private Consultant
Tucson, AZ 85700

**DR. MICHAEL B. MATTHEWS,
PUBLICATIONS CHAIR**

ATK Space Systems
10 Ragsdale Drive, Suite 201
Monterey, CA 93940

PROF. LINDA DEBRUNNER

Acting Publicity Chair
*2010 Conference General Program
Chair (ex officio)*
Dept. of Electrical & Computer Eng.
Florida State University
2525 Pottsdamer Street
Tallahassee, FL 32310-6046

PROF. W. KENNETH JENKINS

Head of Electrical Engineering
The Pennsylvania State University
129 Electrical Engineering East
University Park, PA 16802-2705

PROF. GRAHAM A. JULLIEN

PROF. JAMES A. RITCEY
Dept. of Electrical Engineering
Box 352500, FT-10
University of Washington
Seattle, WA 98195

PROF. MICHAEL SCHULTE

University of Wisconsin
4619 Engineering Hall
1415 Engineering Drive
Madison, WI 53706-1691

**PROF. EARL E. SWARTZLANDER,
JR.**

Dept. of Electrical & Computer Eng.
University of Texas at Austin
Austin, TX 78712

PROF. KEITH A. TEAGUE

Chair, School of Electrical & Computer Eng.
202 Engineering South
Oklahoma State University
Stillwater, OK 74078-5032

2011 Asilomar Technical Program Committee

Chairman

Prof. Robert W. Heath, Jr.
The University of Texas at Austin

2011 Asilomar Technical Program Committee Members

A: Communications Systems

Eduard Jorswieck
Dresden University of Technology,
Germany
Email: jorswieck@ifn.et.tu-dresden.de

B: MIMO Communications and Signal Processing

Kaibin Huang
Yonsei University, South Korea
Email: huangkb@yonsei.ac.kr

C: Networks

Alejandro Ribeiro
University of Pennsylvania
Email: aribeiro@seas.upenn.edu

D: Adaptive Systems and Processing

Phil Schniter
Ohio State University
Email: schniter@ece.osu.edu

E: Array Processing and Statistical Signal Processing

Sergiy Vorobyov
University of Alberta
Email: svor@ieee.org

F: Biomedical Signal and Image Processing

Haris Vikalo
The University of Texas at Austin
Email: hvikalo@ece.utexas.edu

G: Architecture and Implementation

Roger Woods
Queen's University Belfast
Email: r.woods@qub.ac.uk

H: Speech Image and Video Processing

Vishal Monga
Pennsylvania State University
Email: vmonga@engr.psu.edu

Student Paper Contest Chair

Oscar Gustafsson
Linkopings University, Sweden
Email: oscarg@isy.liu.se

Vice Track Chair

Geert Leus
Delft University of Technology
(TU Delft)
The Netherlands
Email: g.j.t.leus@tudelft.nl

2011 Asilomar Conference Session Schedule

Sunday Afternoon, November 6, 2011

- 2:00 - 7:00 PM Registration — Merrill Hall
4:00 - 6:30 PM Student Paper Contest — Heather
7:00 - 9:00 PM Welcoming Dessert Reception — Merrill Hall

Monday Morning, November 7, 2011

- 7:30 - 9:00 AM Breakfast – Crocker Dining Hall
8:00 AM - 6:00 PM Registration
8:15 - 9:45 AM MA1a — Conference Welcome and Plenary Session
9:45 - 10:15 AM Coffee Social

10:15 AM - 12:00 PM MORNING SESSIONS

- MA1b Energy Efficient MIMO Communication
MA2b Delay Sensitive Communication
MA3b Graphical Models in Signal Processing I
MA4b In-network Computation
MA5b Medical Imaging
MA6b Collaborative Beamforming
MA7b Multivariate and Multimodal Analysis of Brain Signals
MA8b1 Computer Arithmetic I (Poster)
MA8b2 Physical Layer Security I (Poster)
MA8b3 Physical Layer Security II (Poster)
MA8b4 Image, Video Coding and Analysis (Poster)
MA8b5 Adaptive Systems and Spectral Estimation (Poster)

- 12:00 - 1:00 PM Lunch – Crocker Dining Hall

Monday Afternoon, November 7, 2011

1:30 - 5:10 PM AFTERNOON SESSIONS

- MP1a Interference-Alignment Techniques for Multi-Antenna Systems
MP1b Interference Alignment for the MIMO Interference Channel
MP2a Energy-Harvesting Wireless Networks
MP2b Coding and Decoding
MP3a Graphical Models in Signal Processing II
MP3b Signal Processing and Learning in Complex Systems
MP4a Compressive Sensing Applications in Networking
MP4b Resource Allocation in Wireless Networks
MP5a Advances in Bioimaging and Analysis
MP5b Image/Video Restoration, Enhancement and Evaluation
MP6a Tensor-based Array Signal Processing
MP6b Compressive Sensing for Array Processing
MP7a Processing of Physiological Signals
MP7b Model-based Design Optimization
MP8a1 Adaptive Filtering (Poster)
MP8a2 Speech Processing, Recognition and Coding (Poster)
MP8a3 Parameter Estimation (Poster)
MP8a4 DSP Algorithms and Architectures (Poster)
MP8a5 Novel DSP Architectures (Poster)

Monday Evening, November 7, 2011

- 6:00 - 9:30 PM Conference Cocktail/Social — Merrill Hall
The Cocktail/Social takes the place of Monday's dinner. No charge for conference attendees or their guests.

2011 Asilomar Conference Session Schedule (continued)

Tuesday Morning, November 8, 2011

7:30 - 9:00 AM Breakfast — Crocker Dining Hall

8:00 AM - 5:00 PM Registration

8:15 - 12:00 PM MORNING SESSIONS

- TA1a Random Matrices in Signal Processing and MIMO Communications
- TA1b Biosignal Estimation and Classification
- TA2a Network Coding
- TA2b Relaying through Frequency Selective Channels
- TA3a Advances in Compressive Sensing
- TA3b Sparse Reconstruction
- TA4a Next Generation Network Science
- TA4b Bio-inspired Models and Algorithms for Information Processing in Complex Networks
- TA5a Image and Video Retrieval
- TA5b Sparse Representations with Applications to Images and Video
- TA6a Waveform Design and MIMO Radar
- TA6b Network Beamforming and Relaying via Multiple Antennas
- TA7 Architectures for Wireless Communications
- TA8a1 Signal Processing Methods for Representation, Analysis, and Control of Biological Systems (Poster)
- TA8a2 Receiver Design and Optimization (Poster)
- TA8a3 Communications System Design (Poster)
- TA8a4 Applications of Array Processing (Poster)
- TA8b1 Multiple Antennas in Multi-User Systems and Networks (Poster)
- TA8b2 Cooperative and Cognitive Transmission in Multi-Antenna Systems (Poster)
- TA8b3 Adaptive Sensing (Poster)

12:00 - 1:00 PM Lunch – Crocker Dining Hall

Tuesday Afternoon, November 8, 2011

1:30 - 5:10 PM AFTERNOON SESSIONS

- TP1a Resource Allocation in Multi-Antenna Systems
- TP1b Interference Management
- TP2a Cognitive Radio I
- TP2b Cognitive Radio II
- TP3a Multi-dimensional Compressive Inference
- TP3b Advances in Adaptive and Distributed Filtering
- TP4a Communication Management in Robot Networks
- TP4b Distributed Storage Systems
- TP5 Compressive Sensing for Radar
- TP6a Source Localization
- TP6b Array Processing for Satellite Communications
- TP7a Adaptive and Evolvable Architectures
- TP7b Computer Arithmetic II
- TP8a1 Techniques for Space-Time Signal Processing (Poster)
- TP8a2 Statistical and Array Signal Processing for Biomedical Applications (Poster)
- TP8a3 Sensor Networks (Poster)
- TP8a4 Wireless Networks (Poster)
- TP8b1 Machine-Learning-Based Statistical Signal Processing (Poster)
- TP8b2 Network Information Theory (Poster)

Tuesday Evening Open Evening — Enjoy the Monterey Peninsula

2011 Asilomar Conference Session Schedule (continued)

Wednesday Morning, November 9, 2011

7:30 - 9:00 AM Breakfast — Crocker Dining Hall

8:00 AM - 12:00 PM Registration — Copyright forms must be turned in before the registration closes at 12:00 noon.

8:15 AM - 12:00 PM MORNING SESSIONS

WA1a Channel Estimation for Multi-Antenna Systems

WA1b MIMO Radar and SAR

WA2a OFDM

WA2b Beamforming

WA3a Information Theoretic Signal Processing

WA3b Compressive Imaging and Detection

WA4a Cooperation & Relays

WA4b Multiuser Information Theory

WA5a Signal Theory and Image Representation

WA5b Biometrics

WA6a Computational Aspects in Array Processing

WA6b Source Separation

WA7a Multi-core/GPU Implementation

WA7b Reconfigurable Architectures, Algorithms and Applications

12:00 - 1:00 PM Lunch — Meal tickets may be purchased at registration desk. This meal is not included in the registration.

Student Paper Contest

Heather Hall - Sunday, November 6, 2011, 4:30 - 6:30 PM

“Spectrum Leasing via Cooperative Opportunistic Routing in Distributed Ad Hoc Networks: Optimal and Heuristic Policies”

Cristiano Tapparello, Davide Chiarotto, Michele Rossi, University of Padova; Osvaldo Simeone, New Jersey Institute of Technology; Michele Zorzi, University of Padova

“Correcting Erasure Bursts with Minimum Decoding Delay”

Zhi Li, Stanford University; Ashish Khisti, University of Toronto; Bernd Girod, Stanford University

“Asymptotic Analysis of Double-Scattering Channels”

Jakob Hoydis, Romain Couillet, and Merouane Debbah, SUPELEC

“Mutual Information Distribution of Interference-Limited MIMO: A Joint Coulomb Fluid and Painleve Based Approach”

Shang Li, Hong Kong University of Science and Technology; Yang Chen, Imperial College London; Matthew McKay, Hong Kong University of Science and Technology

“MSE-Optimal Power Allocation in Wireless Sensor Networks for Field Reconstruction Based on Shift-Invariant Spaces”

Günter Reise, Vienna University of Technology; Javier Matamoros and Carles Antón-Haro, CTTC; Gerald Matz, Vienna University of Technology

“On the Limits of Sequential Testing in High Dimensions”

Matthew Malloy and Robert Nowak, University of Wisconsin

“Non-Uniform Linear Arrays for Improved Identifiability in Cumulant Based DOA Estimation”

Piya Pal and P.P. Vaidyanathan, California Institute of Technology

“Maximum Likelihood Time Delay Estimation for CDMA Direct Spread Multipath Transmissions Using Importance Sampling”

Ahmed Masmoudi, Faouzi Bellili, and Sofiene Affes, INRS-EMT

“Haplotype Inference Based on Sparse Dictionary Selection”

G.H. Jajamovich and X. Wang, Columbia University

“A High-Performance Area-Efficient AES Encipher on a Many-core Platform”

Bin Liu and Bevan Baas, University of California, Davis

“Learning Dictionaries for Local Sparse Coding in Image Classification”

Jayaraman J. Thiagarajan and Andreas Spanias, Arizona State University

2011 Asilomar Conference Session Schedule

Coffee breaks will be at 9:55 AM and 3:10 PM. (Except Monday morning when refreshments will be served outside Chapel from 9:45–10:15 AM)

Monday, November 7, 2011

CONFERENCE WELCOME AND PLENARY SESSION 8:15 – 9:45 AM, LOCATED IN CHAPEL

1. Welcome from the General Chairperson

Dr. James Schroeder

Harris Government Communication Systems

2. Session MA1a Distinguished Lecture for the 2011
Asilomar Conference

Machine Learning in Signal Processing

Prof. Jose C. Principe

Distinguished Professor of Electrical Engineering
University of Florida

Abstract

This talk describes our efforts to go beyond the second order moment assumption still prevalent in optimal signal processing. We show how the second norm of the PDF can be estimated directly from data avoiding an explicit PDF estimation step. The link between PDF moments, information theory and Reproducing Kernel Hilbert spaces will be established. Applications to adaptive systems with entropic cost functions will be demonstrated. A generalized correlation function called correntropy will be defined and its applications in signal processing will be outlined. Correntropy leads to new measures of similarity, to a new definition of dependence subspaces and to new tests for causality.

Biography

Jose C. Principe (M'83-SM'90-F'00) is a Distinguished Professor of Electrical and Computer Engineering and Biomedical Engineering at the University of Florida where he teaches advanced signal processing, machine learning and

artificial neural networks (ANNs) modeling. He is BellSouth Professor and the Founder and Director of the University of Florida Computational NeuroEngineering Laboratory (CNEL) www.cnel.ufl.edu. His primary area of interest is processing of time varying signals with adaptive neural models. The CNEL Lab has been studying signal and pattern recognition principles based on information theoretic criteria (entropy and mutual information).

Dr. Principe is an IEEE Fellow. He was the past Chair of the Technical Committee on Neural Networks of the IEEE Signal Processing Society, Past-President of the International Neural Network Society, and Past-Editor in Chief of the IEEE Transactions on Biomedical Engineering. He is a member of the Advisory Board of the University of Florida Brain Institute. Dr. Principe has more than 500 publications. He directed 62 Ph.D. dissertations and 65 Master theses. He wrote in 2000 an interactive electronic book entitled “Neural and Adaptive Systems” published by John Wiley and Sons and more recently co-authored several books on “Brain Machine Interface Engineering” Morgan and Claypool, “Information Theoretic Learning”, Springer, and “Kernel Adaptive Filtering”, Wiley.

**Program of the
2011 Asilomar Conference on
Signals, Systems, and Computers**

**Technical Program Chairman
Prof. Robert W. Heath, Jr.
The University of Texas at Austin**

Session MA1b Energy Efficient MIMO Communication

Chair: *Chan-Byoung Chae, Yonsei University, S. Korea*

- | | | |
|--------|--|----------|
| MA1b-1 | Optimal Transmission Policies over Vector Gaussian Broadcast Channels with Energy Harvesting Transmitters
<i>Omur Ozel, University of Maryland; Jing Yang, University of Wisconsin-Madison; Sennur Ulukus, University of Maryland</i> | 10:15 AM |
| MA1b-2 | Throughput and Energy Consumption of a Random Network with Energy Harvesters
<i>Kaibin Huang, Yonsei University</i> | 10:40 AM |
| MA1b-3 | Large-Scale Antenna Systems for Wireless Energy Efficiency
<i>Thomas Marzetta, Bell Laboratories, Alcatel-Lucent</i> | 11:05 AM |
| MA1b-4 | Energy-Efficient Training for Antenna Selection in Time-Varying Channels
<i>Vinod Kristem, Broadcom Corporation; Neelesh B. Mehta, Indian Institute of Science; Andreas Molisch, University of Southern California</i> | 11:30 AM |

Session MA2b Delay Sensitive Communication

Chair: *Ashish Khisti, University of Toronto*

- | | | |
|--------|---|----------|
| MA2b-1 | Speeding Multicast by Acknowledgment Reduction Technique (SMART)
<i>Arman Rezaee, Linda Zeger, Muriel Medard, Massachusetts Institute of Technology</i> | 10:15 AM |
| MA2b-2 | Spatially-Aware Adaptive Error Correcting Codes for Flash Memory
<i>Ryan Gabrys, Lara Dolecek, University of California, Los Angeles</i> | 10:40 AM |
| MA2b-3 | Correcting Erasure Bursts with Minimum Decoding Delay
<i>Zhi Li, Stanford University; Ashish Khisti, University of Toronto; Bernd Girod, Stanford University</i> | 11:05 AM |
| MA2b-4 | Code Length and Rate Selection for Delay Sensitive Bursty Traffic
<i>Tara Javidi, University of California, San Diego</i> | 11:30 AM |

Session MA3b Graphical Models in Signal Processing I

Chair: *Mohsen Bayati, Stanford University*

- | | | |
|--------|---|----------|
| MA3b-1 | Stochastic Belief Propagation: A Low-Complexity Message-Passing Algorithm with Guarantees
<i>Nima Noorshams, Martin Wainwright, University of California, Berkeley</i> | 10:15 AM |
| MA3b-2 | Reweighted Linear Programming for Inference and Decoding
<i>Amin Khajehnejad, Alexandros G. Dimakis, Babak Hassibi, University of Southern California</i> | 10:40 AM |

- MA3b-3 Message-Passing on Dense Graphs and Applications in Statistical Learning 11:05 AM
Mohsen Bayati, Andrea Montanari, Stanford University
- MA3b-4 Robust Belief Propagation 11:30 AM
Morteza Ibrahimi, Adel Javanmard, Yashodhan Kanoria, Andrea Montanari, Stanford University

Session MA4b In-network Computation

Chair: *Osvaldo Simeone, New Jersey Institute of Technology*

- MA4b-1 Network Optimization with Heuristic Rational Agents 10:15 AM
Ceyhun Eksin, Alejandro Ribeiro, University of Pennsylvania
- MA4b-2 A Coordination-Free Distributed Algorithm for Simple Assignment Problems Using Randomized Actions 10:40 AM
Usman A. Khan, Tufts University; Soumya Kar, Carnegie Mellon University
- MA4b-3 Distributed Estimation of the Maximum Value over a Wireless Sensor Network 11:05 AM
Franck Iutzeler, Jérémie Jakubowicz, Institut Telecom, Telecom ParisTech, CNRS LTCI; Walid Hachem, CNRS-Telecom ParisTech; Philippe Ciblat, Institut Telecom, Telecom ParisTech, CNRS LTCI
- MA4b-4 Collaborative Sequential-Based Detection in Wireless Sensor Networks 11:30 AM
Sabina Zejnilovic, Carnegie Mellon University; Joao Pedro Gomes, Instituto Superior Tecnico; Bruno Sinopoli, Carnegie Mellon University

Session MA5b Medical Imaging

Chair: *Ge Yang, Carnegie Mellon University*

- MA5b-1 Calibrationless Parallel MRI Using ORACLE (Overlapping Low-Rank Approximations for Coil Image Estimation) 10:15 AM
Joshua Trzasko, Armando Manduca, Mayo Clinic
- MA5b-2 Signal Modeling and the Cramér-Rao Bound for Absolute Magnetic Resonance Thermometry: Feasibility in Fat Tissue 10:40 AM
Marcus Björk, Johan Berghund, Joel Kullberg, Petre Stoica, Uppsala University
- MA5b-3 Level Estimation for Sparse Reconstruction in Discrete Tomography 11:05 AM
Yenting Lin, Antonio Ortega, Alexandros G. Dimakis, University of Southern California
- MA5b-4 Multimodal Image Registration by Consistency of Saliency Map 11:30 AM
Hiroyuki Takeda, University of Michigan

Session MA6b Collaborative Beamforming

Chair: *Sofiène Affes, INRS-EMT, Université du Québec*

- MA6b-1 DSP-Centric Algorithms for Distributed Transmit Beamforming 10:15 AM
Upamanyu Madhow, University of California, Santa Barbara; Raghu Mudumbai, University of Iowa; D. R. Brown, Worcester Polytechnic Institute; Patrick Bidigare, Raytheon BBN Technologies
- MA6b-2 Power Control for Collaborative Beamforming in Wireless Sensor Networks 10:40 AM
Mohammed Ahmed, Sergiy Vorobyov, University of Alberta
- MA6b-3 Testing Zero-Feedback Distributed Beamforming with a Low-Cost SDR Testbed 11:05 AM
George Sklivanitis, Aggelos Bletsas, Technical University of Crete
- MA6b-4 Distributed Cooperative Jamming for Improving Physical Layer Security 11:30 AM
Yupeng Liu, Athina Petropulu, Rutgers University; H. Vincent Poor, Princeton University

Session MA7b Multivariate and Multimodal Analysis of Brain Signals

Co-Chairs: *Justin Dauwels, Nanyang Technological University and Deniz Erdogmus, Northeastern University*

- MA7b-1 Sparse Common Spatial Patterns with Recursive Weight Elimination 10:15 AM
Fikri Goksu, Nuri F. Ince, University of Minnesota
- MA7b-2 Identifying Multivariate EEG Synchronization Networks through Multiple Subject Community Detection 10:40 AM
Marcos Bolanos, Ali Yener Mutlu, Michigan State University; Edward Bernat, Florida State University; Selin Aviyente, Michigan State University
- MA7b-3 Frequency Constrained ShifCP Modeling of Neuroimaging Data 11:05 AM
Morten Mørup, Technical University of Denmark
- MA7b-4 Context Information Significantly Improves Brain Computer Interface Performance - A Case Study on Text Entry Using a Language Model Assisted BCI 11:30 AM
Umut Orhan, Northeastern University; Kenneth E. Hild II, Oregon Health and Science University; Deniz Erdogmus, Northeastern University; Brian Roark, Barry Oken, Melanie Fried-Oken, Oregon Health and Science University

Session MA8b1 Computer Arithmetic I

Chair: Roger Woods, Queen's University Belfast,

10:15 AM - 12:00 PM

- MA8b1-1 Efficient Decimal Leading Zero Anticipator Designs
Mohamed H. Amin, Ahmed M. ElTantawy, Alhassan F. Khedr, Hossam A. H. Fahmy, Cairo University
- MA8b1-2 Hybrid Residue Generators for Increased Efficiency
Michael Sullivan, Earl Swartzlander, The University of Texas at Austin
- MA8b1-3 Nested Quadratic Arithmetic for Efficient Convolution of Complex Sequences with Quadratic Modified Fermat Number Transforms
Chandrashekar Radhakrishnan, University of Illinois; Kenneth Jenkins, Pennsylvania State university
- MA8b1-4 On Building General Modular Adders from Standard Binary Arithmetic Components
Ghassem Jaberipur, Shahid Beheshti University; Behrooz Parhami, University of California, Santa Barbara; Saeed Nejati, Shahid Beheshti University
- MA8b1-5 A Novel Adaptive Filter Implementation Scheme Using Distributed Arithmetic
Rui Guo, Linda S. DeBrunner, Florida State University
- MA8b1-6 A Mixed-Precision Fused Multiply and Add
Nicolas Brunie, Kalray; Florent de Dinechin, École Normale Supérieure de Lyon; Benoit de Dinechin, Kalray
- MA8b1-7 Implementation of 32-bit Ling and Jackson Adders
Matthew Keeter, David Harris, Andrew Macrae, Rebecca Glick, Madeleine Ong, Harvey Mudd College; Justin Schauer, Oracle
- MA8b1-8 Truncated-Matrix Multipliers with Coefficient Shifting
E. George Walters III, Penn State Erie, The Behrend College; Michael J. Schulte, Advanced Micro Devices

Session MA8b2 Physical Layer Security I

Chair: Wing-Kin (Ken) Ma, Chinese University of Hong Kong

10:15 AM - 12:00 PM

- MA8b2-1 Faster than Nyquist Interference Assisted Secret Communication for OFDM Systems
Arsenia Chorti, H. Vincent Poor, Princeton University
- MA8b2-2 QoS-Constrained Robust Beamforming in MISO Wiretap Channels with a Helper
Jing Huang, A. Lee Swindlehurst, University of California, Irvine
- MA8b2-3 Secrecy Outage in MISO Systems with Partial Channel Information
Sabrina Gerbracht, Eduard Jorswieck, Dresden University of Technology
- MA8b2-4 Secrecy Rate for Gaussian MISO Wiretap Channels with Spherical Uncertainty
Jiangyuan Li, Athina Petropulu, Rutgers University

- MA8b2-5 Two-Way Discriminatory Channel Estimation for Non-Reciprocal Wireless MIMO Channels
Chao-Wei Huang, Tsung-Hui Chang, National Tsing Hua University; Xiangyun Zhou, University of Oslo; Y.-W. Peter Hong, National Tsing Hua University
- MA8b2-6 Safe Convex Approximation to Outage-Based MISO Secrecy Rate Optimization under Imperfect CSI and with Artificial Noise
Qiang Li, Wing-Kin Ma, Anthony Man-Cho So, Chinese University of Hong Kong
- MA8b2-7 Benefits of Multiple Transmit Antennas in Secure Communication: A Secrecy Outage Viewpoint
Xi Zhang, Hong Kong University of Science and Technology; Xiangyun Zhou, University of Oslo; Matthew McKay, Hong Kong University of Science and Technology
- MA8b2-8 Strong Secrecy in Bidirectional Relay Networks
Rafael F. Wyrembelski, Holger Boche, Technische Universität München

Session MA8b3 Physical Layer Security II

Chair: *Wing-Kin (Ken) Ma, Chinese University of Hong Kong*

10:15 AM - 12:00 PM

- MA8b3-1 A Full-Duplex Active Eavesdropper in MIMO Wiretap Channels: Construction and Countermeasures
Amitav Mukherjee, A. Lee Swindlehurst, University of California, Irvine
- MA8b3-2 RF Fingerprinting of Users Who Actively Mask Their Identities with Artificial Distortion
Adam Polak, Dennis L. Goeckel, University of Massachusetts Amherst
- MA8b3-3 Power Allocation to Noise-Generating Nodes for Cooperative Secrecy in the Wireless Environment
Kyle Morrison, Dennis L. Goeckel, University Massachusetts Amherst
- MA8b3-4 Comparing Random Signals with Application to Wireless User Authentication
Jitendra Tugnait, Auburn University
- MA8b3-5 Transmit Beamforming and Cooperative Jamming for MIMOME Wiretap Channels
Wei Shi, James Ritcey, University of Washington
- MA8b3-6 Secrecy in Broadcast Channels with Receiver Side Information
Rafael F. Wyrembelski, Universitat Munchen; Aydin Sezgin, Ulm University; Holger Boche, Universitat Munchen
- MA8b3-7 Coherent Demodulation of AIS-GMSK Signals in Co-Channel Interference
Douglas Nelson, Joseph Hopkins, U.S. Department of Defense; Anthony Bartos, Welkin Associates, Ltd.
- MA8b3-8 Secure Wireless Multicasting Through Nakagami-m Fading MISO Channel
Md. Zahurul I. Sarkar, Tharmalingam Ratnarajah, Queen's University Belfast

Session MA8b4 Image, Video Coding and Analysis

Chair: *Vishal Monga, Pennsylvania State University*

10:15 AM - 12:00 PM

- MA8b4-1 JPEG Image Compression Using Quantization Table Optimization Based on Perceptual Image Quality Assessment
Yuebing Jiang, Marios Pattichis, University of New Mexico
- MA8b4-2 Efficient Coders for Large Tree-Structured Dictionaries of Tilings
Kai-Lung Hua, National Taiwan University of Science and Technology; Rong Zhang, Qualcomm Incorporated; Mary Comer, Ilya Pollak, Purdue University
- MA8b4-3 Variable Block Size-Based MCFI with Fixed Block Size Motion Estimation
Masaru Hoshi, Akihiro Yoshinari, Yuichi Tanaka, Madoka Hasegawa, Shigeo Kato, Utsunomiya University
- MA8b4-4 A Structural Similarity Assessment for Generating Hybrid Images
Keita Takahashi, Madoka Hasegawa, Yuichi Tanaka, Shigeo Kato, Utsunomiya University
- MA8b4-5 A Compact Saliency Model for Video-Rate Implementation
Tien Ho-Phuoc, Laurent Alacoque, Antoine Dupret, CEA; Anne Guérin-Dugué, GIPSA-Lab; Arnaud Verdant, CEA
- MA8b4-6 Dithered Soft Decision Quantization for Baseline JPEG Encoding and its Joint Optimization with Huffman Coding and Quantization Table Selection
En-hui Yang, Chang Sun, University of Waterloo
- MA8b4-7 Compressive Sensing Based Imaging via Beleif Propagation
Preethi Ramchandara, Mina Sartipi, University of Tennessee Chattanooga
- MA8b4-8 An SVD Approach for Data Compression in Emitter Location Systems
Mohammad Pourhomayoun, Mark Fowler, Binghamton University

Session MA8b5 Adaptive Systems and Spectral Estimation

Chair: *Vitor Nascimento, University of Sao Paulo*

10:15 AM - 12:00 PM

- MA8b5-1 A Modified System-Based Adaptive Algorithm for a Sparse Reconfigurable Photonic Filter
Suk-seung Hwang, Hong Chang, Chosun University; John J. Shynk, University of California, Santa Barbara
- MA8b5-2 A New Variable Step-Size Strategy For Adaptive Networks
Muhammad Bin Saeed, Azzedine Zerguine, King Fahd University of Petroleum & Minerals

- MA8b5-3 A Comparison of Methods for Estimating Broadband Noise in the Frequency Domain
Don Hush, Norma Pawley, Kary Myers, Robert Nemzek, Los Alamos National Laboratory
- MA8b5-4 An Information Filter for Voice Prompt Suppression
John McDonough, Carnegie Mellon University; Kenichi Kumatani, Disney Research; Bhiksha Raj, Carnegie Mellon University; Jill Lehman, Disney Research
- MA8b5-5 Embedded Track Validation for Tree Search-Based Tracking of Maneuvering Targets
Hossein Roufsharshbaf, Jill Nelson, George Mason University
- MA8b5-6 Urban Terrain Multiple Target Tracking Using Probability Hypothesis Density Particle Filtering
Meng Zhou, Bhavana Chakraborty, Jun Jason Zhang, Arizona State University
- MA8b5-7 High-Resolution Non-Parametric Spectral Estimation Using the Hirschman Optimal Transform
Guifeng Liu, Victor DeBrunner, Florida State University
- MA8b5-8 Co-Prime Sampling for System Stabilization with FIR Multi-Rate Controllers
P. P. Vaidyanathan, Piya Pal, California Institute of Technology

Session MP1a Interference-Alignment Techniques for Multi-Antenna Systems

Chair: *Vincent Lau, Hong Kong University of Science and Technology*

- MP1a-1 Interference Alignment for Peer-to-Peer Underlay MIMO Cognitive Radio Network 1:30 PM
Huiqin Du, Tharmalingam Ratnarajah, Haichuan Zhou, Queen's University Belfast; Ying-Chang Liang, Institute for Infocomm Research
- MP1a-2 Sum Rate Enhancement by Maximizing SGINR in an Opportunistic Interference Alignment Scheme 1:55 PM
Seong-Ho (Paul) Hur, University of California, San Diego; Bang-Chul Jung, Gyeongsang National University; Bhaskar D. Rao, University of California, San Diego
- MP1a-3 Interference Alignment for Partially Connected Quasi-static MIMO Interference Channel 2:20 PM
Liangzhong Ruan, Vincent K.N. Lau, Hong Kong University of Science and Technology
- MP1a-4 Opportunistic MU-MIMO based on Semi-Blind Interference Alignment 2:45 PM
Haralabos Papadopoulos, Sayandev Mukherjee, Sean Ramprasad, DoCoMo USA Labs

Session MP1b Interference Alignment for the MIMO Interference Channel

Chair: *Geert Leus, Technical University of Delft*

- MP1b-1 Linear Interference Alignment and its Maximum Achievable Degrees of Freedom 3:30 PM
Meisam Razaviyayn, Gennady Lyubeznik, Zhi-Quan Luo, University of Minnesota
- MP1b-2 MIMO Interference Alignment in Random Access Networks 3:55 PM
Behrang Nosrat-Makouei, Radha Krishna Ganti, Jeffrey G. Andrews, Robert W. Heath, Jr., The University of Texas at Austin
- MP1b-3 The Noisy MIMO Interference Channel with Distributed CSI Acquisition and Filter Computation 4:20 PM
Francesco Negro, Eurecom; Umer Salim, Irfan Ghauri, Intel Corporation; Dirk Slock, Eurecom
- MP1b-4 Secure Space-Time Block Coding via Artificial Noise Alignment 4:45 PM
S. Ali A. Fakoorian, A. Lee Swindlehurst, University of California, Irvine

Session MP2a Energy-Harvesting Wireless Networks

Chair: *Oswaldo Simeone, NJIT*

- MP2a-1 AWGN Channel under Time-Varying Amplitude Constraints with Causal Information at the Transmitter 1:30 PM
Omur Ozel, Sennur Ulukus, University of Maryland
- MP2a-2 Optimal Power Control for Energy Harvesting Transmitters in an Interference Channel 1:55 PM
Kaya Tutuncuoglu, Aylin Yener, Penn State University
- MP2a-3 Queuing Theoretic and Information Theoretic Capacity of Energy Harvesting Sensor Nodes 2:20 PM
Vinod Sharma, Indian Institute of Science; Ramachandran Rajesh, Centre for Airborne Systems
- MP2a-4 Queue and Power Control for Rechargeable Sensor Networks under the SINR Interference Model 2:45 PM
Zhoujia Mao, Can Emre Koksall, Ness B. Shroff, Ohio State University

Session MP2b Coding and Decoding

Chair: *Aydin Sezgin, University of Ulm*

- MP2b-1 Complexity Analysis of Interior Point Methods for LP Decoding 3:30 PM
Yifan Sun, Lara Dolecek, University of California, Los Angeles
- MP2b-2 Rate Adaptive Non-Binary LDPC Codes with Low Encoding Complexity 3:55 PM
Nicholas Chang, MIT Lincoln Laboratory

- MP2b-3 Achieving Flexibility in LDPC Code Design 4:20 PM
by Absorbing Set Elimination
Jiajun Zhang, Jiadong Wang, University of California, Los Angeles; Shayan Garani Srinivasa, Western Digital Corporation; Lara Dolecek, University of California, Los Angeles
- MP2b-4 Decoding by Detection: 4:45 PM
Soft-Input/Soft-Output Error Correction Decoders
for Arbitrary Binary Linear Codes
Todd Moon, Jacob (Jake) Gunther, Utah State University

Session MP3a Graphical Models in Signal Processing II

Chair: *Alex Ihler, University of California, Irvine*

- MP3a-1 Regime Change: Bit-Depth versus 1:30 PM
Measurement-Rate in Compressive Sensing
Jason N. Laska, Richard Baraniuk, Rice University
- MP3a-2 Inference and Learning for Continuous-Time 1:55 PM
Stochastic Systems
Christian Shelton, E. Busra Celikkaya, University of California, Riverside
- MP3a-3 Approximate Bayesian Inference for Robust 2:20 PM
Speech Processing
Ciira Maina, John Walsh, Drexel University
- MP3a-4 Out-of-Sequence Measurements and 2:45 PM
Incremental Inference in Graphical Models
Ozgur Sumer, University of Chicago; Ramgopal Mettu, University Massachusetts Amherst; Umut Acar, MPI-SWS; Alexander Ihler, University of California, Irvine

Session MP3b Signal Processing and Learning in Complex Systems

Chair: *Andrew Singer, University of Illinois at Urbana-Champaign*

- MP3b-1 Diffusion Adaptation over Networks of 3:30 PM
Particles Subject to Brownian Fluctuations
Ali H. Sayed, Faten Sayed, University of California, Los Angeles
- MP3b-2 Trust, Opinion Diffusion and Radicalization 3:55 PM
in Social Networks
Lin Li, Anna Scaglione, University of California, Davis; Ananthram Swami, Army Research Laboratory; Qing Zhao, University of California, Davis
- MP3b-3 Disentangling Mixed Preference Systems and 4:20 PM
Hidden Variables
Constantine Caramanis, The University of Texas at Austin
- MP3b-4 Unity Versus Diversity in a Population of 4:45 PM
Interacting Adaptive Agents: the Value of Extrinsic Gossip
Andrew Bean, Andrew Singer, University of Illinois, Urbana-Champaign

Session MP4a Compressive Sensing Applications in Networking

Chair: *Jarvis Haupt, University of Minnesota*

- MP4a-1 Sparse Recovery of Temporally Changing 1:30 PM
 Networks: Longitudinal Modeling of Brain
 Networks in Children
*Moo Chung, Jamie Hanson, Seth Pollak, University of
 Wisconsin*
- MP4a-2 Unveiling Anomalies in Large-Scale 1:55 PM
 Networks via Sparsity and Low Rank
*Morteza Mardani, Gonzalo Mateos, Georgios B.
 Giannakis, University of Minnesota*
- MP4a-3 Random Access Compressed Sensing: An 2:20 PM
 Integrated Architecture for Energy-Efficient
 Networking
*Fatemeh Fazel, Northeastern University; Maryam Fazel,
 University of Washington; Milica Stojanovic, Northeastern
 University*
- MP4a-4 Recent Results on Sparse Recovery over 2:45 PM
 Graphs
*Weiyu Xu, Meng Wang, Enrique Mallada, Ao Kevin Tang,
 Cornell University*

Session MP4b Resource Allocation in Wireless Networks

Chair: *Rahul Uргаonkar, University of Southern California*

- MP4b-1 MSE-Optimal Power Allocation in Wireless 3:30 PM
 Sensor Networks for Field Reconstruction Based on
 Shift-Invariant Spaces
*Günter Reise, Vienna University of Technology; Javier
 Matamoros, Carles Antón-Haro, Centre Tecnològic de
 Telecomunicacions de Catalunya (CTTC); Gerald Matz,
 Vienna University of Technology*
- MP4b-2 Spatial Interference Mitigation for 3:55 PM
 Multiple-Input Multiple-Output Ad Hoc Networks
*Salam Akoum, The University of Texas at Austin; Marios
 Kountouris, Mérouane Debbah, Supélec; Robert W. Heath,
 Jr., The University of Texas at Austin*
- MP4b-3 A Greedy Link Scheduler for Wireless 4:20 PM
 Networks with Fading Channels
A. Sridharan, Emre Koksal, Ohio State University
- MP4b-4 Radio Resource Management in 4:45 PM
 Heterogeneous Deployments: a System Level
 Perspective
Thomas Wirth, Fraunhofer Heinrich Hertz Institute

Session MP5a Advances in Bioimaging and Analysis

Chair: *Jean-Christophe Olivo-Marin, Institut Pasteur*

- MP5a-1 Quantitative Synaptic Vesicle Imaging for Evaluating Neuron Activities in Neurodegenerative Diseases 1:30 PM
Jing Fan, Xiaofeng Xia, Stephen Wong, Methodist Hospital Research Institute
- MP5a-2 Flexible and Efficient Multi-Region Segmentation Using Active Contours 1:55 PM
Grégory Paul, Janick Cardinale, Ivo F. Sbalzarini, ETH Zurich
- MP5a-3 Nanometer Resolution Imaging and Tracking of Axonal Cargo Transport in Normal and Degenerative Neurons 2:20 PM
Ge Yang, Carnegie Mellon University
- MP5a-4 Statistical Colocalization of Molecular Species in Biological Imaging 2:45 PM
Vannary Meas-Yedid, Cyril Basquin, Nathalie Sauvonnnet, Jean-Christophe Olivo-Marin, Institut Pasteur

Session MP5b Image/Video Restoration, Enhancement and Evaluation

Chair: *Mary Comer, Purdue University*

- MP5b-1 Tikhonov's Regularization Functional for Image Restoration by Means of q-Discrepancy 3:30 PM
Vania V. Estrela, Universidade Federal Fluminense; Aggelos K. Katsaggelos, Northwestern University
- MP5b-2 Equivalence of Plenoptic Cameras 3:55 PM
Todor Georgiev, Adobe; Sergio Goma, Qualcomm Incorporated; Andrew Lumsdaine, Adobe
- MP5b-3 Referenceless Image Spatial Quality Evaluator 4:20 PM
Anish Mittal, Anush Moorthy, Alan Bovik, Wireless Networking and Communications Group
- MP5b-4 Noise Model Discrimination for Digital Images based on Variance-Stabilizing Transforms and on Local Statistics: Preliminary Results 4:45 PM
Paul Rodriguez, Pontificia Universidad Catolica del Peru

Session MP6a Tensor-based Array Signal Processing

Chair: *Martin Haardt, Ilmenau University of Technology*

- MP6a-1 Modeling Latency and Shape Changes in Trial Based Neuroimaging Data 1:30 PM
Morten Mørup, Technical University of Denmark; Kristoffer Hougaard Madsen, Hvidovre Hospital; Lars Kai Hansen, Technical University of Denmark

- MP6a-2 Canonical Decomposition of Non-Negative arrays 1:55 PM
Julie Coloigner, Laurent Albera, Lotfi Senhadji, Amar Kachenoura, University of RENNES 1, LTSI and INSERM, UMR 642
- MP6a-3 Tensor-Based Semi-Blind Channel Estimation for MIMO OSTBC-Coded Systems 2:20 PM
Florian Roemer, Ilmenau University of Technology; Nima Sarmadi, Technische Universität Darmstadt; Bin Song, Martin Haardt, Ilmenau University of Technology; Marius Pesavento, Alex Gershman, Technische Universität Darmstadt
- MP6a-4 Tensor Decompositions with Block-Toeplitz Structure and Applications in Signal Processing 2:45 PM
Mikael Sorensen, Lieven De Lathauwer, K.U. Leuven

Session MP6b Compressive Sensing for Array Processing

Chair: *Benjamin Friedlander, University of California, Santa Cruz*

- MP6b-1 The MUSIC Algorithm for Compressive Imaging: Noise Stability and Performance Guarantee 3:30 PM
Albert Fannjiang, University of California, Davis
- MP6b-2 Some Theoretical Results for Compressive Radar 3:55 PM
Thomas Strohmer, University of California, Davis; Benjamin Friedlander, University of California, Santa Cruz
- MP6b-3 Sensitivity Considerations in Compressed Sensing 4:20 PM
Louis Scharf, Ali Pezeshki, Colorado State University; Yuejie Chi, Princeton University
- MP6b-4 Coherence, Compressive Sensing and Random Sensor Arrays 4:45 PM
Lawrence Carin, Duke University

Session MP7a Processing of Physiological Signals

Co-Chairs: *Nuri Firat Ince, University of Minnesota and Morten Morup, Technical University of Denmark*

- MP7a-1 Does the Morphology of High-Frequency (100-500 Hz) Brain Oscillations Change During Epileptic Seizures? 1:30 PM
Allison Pearce, Drausin Wulsin, Brian Litt, Justin Blanco, University of Pennsylvania
- MP7a-2 Early Investigations into Subjective Audio Quality Assessment Using Brainwave Responses 1:55 PM
Charles Creusere, Srikant Siddenki, New Mexico State University; Joe Hardin, Colorado State University; Jim Kroger, New Mexico State University

- MP7a-3 Electrocardiogram Signal Modeling and Estimation Using the Interacting Multiple Model Particle Filtering 2:20 PM
Shwetha Edla, Narayan Kovvali, Antonia Papandreou-Suppappola, Arizona State University
- MP7a-4 A Novel Approach for Simulation, Measurement and Representation of Surface EMG (sEMG) Signals 2:45 PM
Anvith Mahabalagiri, Khadeer Ahmed, Fred Schlereth, Syracuse University

Session MP7b Model-based Design Optimization

Chair: *Michael Schulte, AMD*

- MP7b-1 Distributed Energy and Environment Sensing for Smart Building Management 3:30 PM
Chen Xia, Hao Liu, Xiangrong Zhou, University of Hawaii
- MP7b-2 FPGA-Accelerator System for Computing Biologically-Inspired Feature Extraction Models 3:55 PM
Michael DeBole, Pennsylvania State University; Chilli Yu, Arizona State University; Ahmed Al Maashri, Matthew Cotter, Pennsylvania State University; Chaitali Chakrabarti, Arizona State University; Vijaykrishnan Narayanan, Pennsylvania State University
- MP7b-3 A Machine Model for Dataflow Actors and its Applications 4:20 PM
Jorn W. Janneck, Lund University
- MP7b-4 Operation Set Customization in Retargetable Compilers 4:45 PM
Heikki Kultala, Pekka Jääskeläinen, Mikael Lepistö, Jarmo Takala, Tampere University of Technology

Session MP8a1 Adaptive Filtering

Chair: *Andrew Klein, Worcester Polytechnic Institute*

1:30 PM - 3:10 PM

- MP8a1-1 Simplified Complex LMS Algorithm for the Cancellation of Second-Order TX Intermodulation Distortions in Homodyne Receivers 1:30 PM - 3:10 PM
Christian Lederer, Mario Huemer, Alpen-Adria-Universitaet Klagenfurt
- MP8a1-2 A Steady-State Analysis of the E-Normalized Sign-Error Least Mean Square (NSLMS) Adaptive Algorithm 1:30 PM - 3:10 PM
Mohammed Faiz, Azzedine Zerguine, King Fahd University of Petroleum & Minerals
- MP8a1-3 A Modified Non-Negative LMS Algorithm and its Stochastic Behavior Analysis 1:30 PM - 3:10 PM
Jie Chen, Cédric Richard, Université de Nice Sophia-Antipolis; Jose Bermudez, Federal University of Santa Catarina; Paul Honeine, Université de Technologie de Troyes
- MP8a1-4 A Robust LMS Adaptive Algorithm over Distributed Networks 1:30 PM - 3:10 PM
Muhammad Bin Saeed, Azzedine Zerguine, Salam Zummo, King Fahd University of Petroleum & Minerals

- MP8a1-5 Error-Based “Gear-Shifting” for a Generalized LMS Algorithm
John J. Shynk, University of California, Santa Barbara
- MP8a1-6 A Variable Step-Size GMDF and its Performance Analysis
Hsu-Chang Huang, Junghsi Lee, Yuan-Ze University
- MP8a1-7 Acoustic Feedback and Echo Cancellation Strategies for Multiple-Microphone and Single-Loudspeaker Systems
Meng Guo, Thomas Bo Elmedyb, Oticon A/S; Søren Holdt Jensen, Aalborg University; Jesper Jensen, Oticon A/S
- MP8a1-8 Comparison of Several Techniques for Adaptive Band-Stop Filters
Michael Soderstrand, University of California (Retired)

Session MP8a2 Speech Processing, Recognition and Coding

Chair: *Jerry Gibson, University of California, Santa Barbara*

1:30 PM - 3:10 PM

- MP8a2-1 Automatic Phoneme Recognition with Segmental Hidden Markov Models
Areg Baghdasaryan, A. A. (Louis) Beex, Virginia Polytechnic Institute and State University
- MP8a2-2 A Perceptually Re-Weighted Mixed-Norm Method for Sparse Approximation of Audio Signals
Mads Christensen, Bob Sturm, Aalborg University
- MP8a2-3 Scalable Multimode Tree Coder with Perceptual Pre-Weighting and Post-Weighting for Wideband Speech Coding
Ying-Yi Li, Jerry Gibson, University of California, Santa Barbara
- MP8a2-4 Isolated Word Endpoint Detection Using Time-Frequency Variance Kernels
Alexandros Kyriakides, Costas Pitris, University of Cyprus; Andreas Spanias, Arizona State University
- MP8a2-5 Performance Enhanced Multi-Rate iLBC
Koji Seto, Tokunbo Ogunfunmi, Santa Clara University
- MP8a2-6 Enabling Improved Speaker Recognition by Voice Quality Estimation
Anthony Bartos, Welkin Associates, Ltd.; Douglas Nelson, U.S. Department of Defense

Session MP8a3 Parameter Estimation

Chair: *P.P. Vaidyanathan, California Institute of Technology*

1:30 PM - 3:10 PM

- MP8a3-1 On Spatial Smoothing of High Resolution Direction Finding of Real-Valued Sinusoidal Signals
H. Howard Fan, University of Cincinnati; Stewart DeVilbiss, Air Force Research Laboratory

- MP8a3-2 Non-Uniform Linear Arrays for Improved Identifiability in Cumulant Based DOA Estimation
Piya Pal, P. P. Vaidyanathan, California Institute of Technology
- MP8a3-3 Knowledge-Aided Direction Finding Based on Unitary ESPRIT
Jens Steinwandt, Ilmenau University of Technology; Rodrigo C. de Lamare, University of York; Martin Haardt, Ilmenau University of Technology
- MP8a3-4 Maximum Likelihood Time Delay Estimation for CDMA Direct-Spread Multipath Transmissions Using Importance Sampling
Ahmed Masmoudi, Faouzi Bellili, Sofiene Affes, INRS-EMT
- MP8a3-5 Particle Filter Based DOA Estimation for Multiple Source Tracking (MUST)
Thomas Wiese, Technical University Munich; Heiko Claussen, Justinian Rosca, Siemens Corporation, Corporate Research
- MP8a3-6 Direction-of-Arrival Estimation Using Distributed Body Area Networks: Error & Refraction Analysis
Kaveh Ghaboosi, Pranay Pratap Swar, Kaveh Pahlavan, Worcester Polytechnic Institute
- MP8a3-7 Bayesian Estimation of a Subspace
Olivier Besson, University of Toulouse-ISAIE; Nicolas Dobigeon, Jean-Yves Tournier, University of Toulouse-IRIT/ENSEIHT
- MP8a3-8 Model Order Selection in Sensor Array Response Modeling
Mário Costa, Andreas Richter, Visa Koivunen, Aalto University

Session MP8a4 DSP Algorithms and Architectures

Chair: *Michael Schulte, AMD, USA*

1:30 PM - 3:10 PM

- MP8a4-1 High Dynamic Range Adaptive Delta-Sigma Based Focal Plane Array Architecture
Shun Yao, Marvel Semiconductors; Sam Kavusi, Khaled Nabil Salama, King Abdullah University of Science and Technology
- MP8a4-2 Block Circular and Hyperbolic Transformations for the Block Fast Array RLS Algorithm
Roger West, Todd Moon, Jacob (Jake) Gunther, Utah State University
- MP8a4-3 The Polyphase Random Demodulator for Wideband Compressive Sensing
J.P. Slavinsky, Jason N. Laska, Richard Baraniuk, Rice University
- MP8a4-4 A Floating-Point Fused FFT Butterfly Arithmetic Unit with Merged Multiple-Constant Multipliers
Jae Hong Min, Seong-Wan Kim, Earl Swartzlander, The University of Texas at Austin

- MP8a4-5 Exploiting Cross-Channel Quantizer Error Correlation in Time-Interleaved Analog-to-Digital Converters
Joseph G. McMichael, Shay Maymon, Alan V. Oppenheim, Massachusetts Institute of Technology

Session MP8a5 Novel DSP Architectures

Chair: *David Thomas, Imperial College London, UK*

1:30 PM - 3:10 PM

- MP8a5-1 In-Service Reconfiguration of Signal Processing Components
Gordon Brebner, Christopher Neely, Shay Seng, Xilinx, Inc.
- MP8a5-2 Rethinking Computation Using FPGA Based Accelerators for Large Applications
Dennis Allison, Michael J Flynn, Oskar Mencer, Maxeler Technologies
- MP8a5-3 Versatile FPGA DSP Blocks with Carry-Save Arithmetic Support
Hadi Parandeh Afshar, Paolo Ienne, École Polytechnique Fédérale de Lausanne (EPFL)
- MP8a5-4 Scalable Acceleration of High-Performance, Fourier-Domain Optical Coherence Tomography
Lesley Shannon, Simon Fraser University
- MP8a5-5 Fine-Grain Reconfigurable Functional Unit for Embedded Processors
Gian Carlo Cardarilli, Luca Di Nunzio, Rocco Fazzolari, Marco Re, University of Rome Tor Vergata
- MP8a5-6 Increasing Productivity of Reconfigurable Computing for Signal Processing
Wayne Luk, Imperial College London
- MP8a5-7 Synchronous and Asynchronous Computations with Molecular Reactions
Hua Jiang, Marc D. Riedel, Keshab K. Parh Parhi, University of Minnesota
- MP8a5-8 Design and Implementation of a Flexible Queue Manager for Next Generation Networks
Qi Zhang, Roger Woods, Alan Marshall, Queen's University Belfast

Session TA1a Random Matrices in Signal Processing and MIMO Communications

Chair: *Matthew McKay, Hong Kong University of Science and Technology*

- TA1a-1 Beyond Eckart-Young-Mirsky: Exploiting Random Matrix Theory to Improve Subspace Approximation 8:15 AM
Raj Rao Nadakuditi, University of Michigan

- TA1a-2 Beyond IID Gaussian Matrices in 8:40 AM
 Compressed Sensing
Antonia Tulino, Bell Laboratories, Alcatel-Lucent;
Giuseppe Caire, University of Southern California;
Shlomo Shamai, Technion-Israel Institute of Technology;
Sergio Verdú, Princeton University
- TA1a-3 Mutual Information Distribution of 9:05 AM
 Interference-Limited MIMO: A Joint Coulomb
 Fluid and Painlevel Based Approach
Shang Li, Hong Kong University of Science and
Technology; Yang Chen, Imperial College London;
Matthew McKay, Hong Kong University of Science and
Technology
- TA1a-4 Outage Capacity for MIMO-OFDM Systems 9:30 AM
 in Block Fading Channels
Marco Chiani, University of Bologna; Andrea Conti,
University of Ferrara; Matteo Mazzotti, Enrico Paolini,
University of Bologna; Alberto Zanella, WiLab/IEIT-BO
CNR

Session TA1b Biosignal Estimation and Classification

Co-Chairs: *Ulisses Braga-Neto, Texas A&M University and Antonia
 Papandreou-Suppappola, Arizona State University*

- TA1b-1 A Real-Time Reconstruction Algorithm for 10:15 AM
 the Integrate and Fire Sampler
Alexander Singh Alvarado, Jose Principe, University of
Florida
- TA1b-2 Using Physiological Signals to Predict Apnea 10:40 AM
 in Preterm Infants
James Williamson, Daniel Bliss, David Browne, MIT
Lincoln Laboratory; Elisabeth Salisbury, Premananda
Indic, David Paydarfar, University of Massachusetts
Medical School
- TA1b-3 Assessing Dysarthria Severity Using Global 11:05 AM
 Statistics and Boosting
Alicia DeMino, General Dynamics; Robert Kubichek,
University of Wyoming; Kevin Caves, Duke University
- TA1b-4 Characterization of Human Use of Ethanol 11:30 AM
 Based on Video Games with Ethanol Rewards:
 Model, System Identification and Statistical
 Performance
Ipek Ozil, Cornell University; Martin H. Plawecki,
Indiana University School of Medicine; Peter C.
Doerschuk, Cornell University; Sean J. O'Connor, Indiana
University School of Medicine

Session TA2a Network Coding

Chair: *Athina Markopoulou, University of California, Irvine*

- TA2a-1 Network Alignment 8:15 AM
Syed Jafar, University of California, Irvine

- | | | |
|--------|--|---------|
| TA2a-2 | Network Coding for Data Replication over
Wireless Networks
<i>Lorenzo Keller, Christina Fragouli, École Polytechnique
Fédérale de Lausanne (EPFL)</i> | 8:40 AM |
| TA2a-3 | A Fundamental Approach to Securing Data in
the Cloud from Adversarial Attacks
<i>Salim El Rouayheb, Sameer Pawar, Kannan
Ramchandran, University of California, Berkeley</i> | 9:05 AM |
| TA2a-4 | Network Coding for Security and Privacy
<i>Tracey Ho, California Institute of Technology</i> | 9:30 AM |

Session TA2b Relaying through Frequency Selective Channels

Chair: *Andy Klein, Worcester Polytechnic Institute*

- | | | |
|--------|--|----------|
| TA2b-1 | Distributed Single Carrier Frequency-Domain
Equalization for Multi-Relay Cooperative Networks
over Frequency Selective Rician Channels
<i>Homa Eghbali, Sami Muhaidat, Simon Fraser University;
Ibrahim Abualhaol, Khalifa University of Science,
Technology and Research</i> | 10:15 AM |
| TA2b-2 | Cooperative BICM-OFDM Systems for
Frequency-Selective Relay Channels
<i>Reza Heidarpour, Murat Uysal, University of Waterloo</i> | 10:40 AM |
| TA2b-3 | On Relay Selection in Frequency Selective
Channels
<i>Qingxiong Deng, Andrew Klein, Worcester Polytechnic
Institute</i> | 11:05 AM |
| TA2b-4 | Superposition Coding for Cooperative
BICM-OFDM Systems
<i>Toufiquel Islam, Robert Schober, University of British
Columbia; Ranjan K Mallik, Indian Institute of
Technology, Delhi; Vijay K Bhargava, University of British
Columbia</i> | 11:30 AM |

Session TA3a Advances in Compressive Sensing

Chair: *Christoph Studer, Rice University*

- | | | |
|--------|---|---------|
| TA3a-1 | An Empirical-Bayes Approach to
Compressive Sensing via Approximate Message
Passing
<i>Jeremy Vila, Philip Schniter, Ohio State University</i> | 8:15 AM |
| TA3a-2 | Compressive Sensing under Multiplicative
Uncertainties: An Approximate Message Passing
Approach
<i>Jason Parker, Air Force Research Laboratory; Volkan
Cevher, École Polytechnique Fédérale de Lausanne
(EPFL); Philip Schniter, Ohio State University</i> | 8:40 AM |
| TA3a-3 | Compressive Sensing: to Compress or not to
Compress
<i>Davis Kirachaiwanich, Qilian Liang, The University of
Texas at Arlington</i> | 9:05 AM |
| TA3a-4 | Spread Representations
<i>Jean Jacques Fuchs, Université de Rennes 1</i> | 9:30 AM |

Session TA3b Sparse Reconstruction

Chair: *Geert Leus, Technical University of Delft*

- TA3b-1 New Bounds for Restricted Isometry Constants in Orthogonal Multi Matching Pursuit 10:15 AM
Jian Wang, Byonghyo Shim, Korea University
- TA3b-2 Cyclic Greedy Algorithms for Recovering Compressively Sampled Sparse Signals 10:40 AM
Bob Sturm, Mads Christensen, Aalborg University; Rémi Gribonval, INRIA
- TA3b-3 Greedy Sparsity-Constrained Optimization 11:05 AM
Sohail Bahmani, Carnegie Mellon University; Petros Boufounos, Mitsubishi Electric Research Labs; Bhiksha Raj, Carnegie Mellon University
- TA3b-4 Power-Iterative Strategy for lp-l2 Optimization for Compressive Sensing: Towards Global Solution 11:30 AM
Jie Yan, Wu-Sheng Lu, University of Victoria

Session TA4a Next Generation Network Science

Co-Chairs: *Victor Preciado, University of Pennsylvania and Ali Jadbabaie, University of Pennsylvania*

- TA4a-1 Network Synthesis for Dynamical System Stabilization 8:15 AM
Miroslav Pajic, University of Pennsylvania; Shreyas Sundaram, University of Waterloo; George J. Pappas, Rahul Mangharam, University of Pennsylvania
- TA4a-2 A Contrasting Look at Network Formation Models and Their Application to the Minimum Spanning Tree 8:40 AM
David Alderson, Gerald Brown, Naval Postgraduate School; D.B. McPherson, U.S. Navy
- TA4a-3 The Role of Local Structural Information in Viral Information Spreading 9:05 AM
Victor Preciado, Ali Jadbabaie, University of Pennsylvania
- TA4a-4 Learning, Memory and the Role of Neural Network Architecture 9:30 AM
Ann Hermundstad, Kevin Brown, Danielle Bassett, Jean Carlson, University of California, Santa Barbara

Session TA4b Bio-inspired Models and Algorithms for Information Processing in Complex Networks

Chair: *Usman Khan, Tufts University*

- TA4b-1 On Scheduling Without a Master Clock: Coupled Oscillator Time Division Multiplexing 10:15 AM
Andrea Rueetschi, Anna Scaglione, University of California, Davis

- TA4b-2 On the Effects of Topology and Node 10:40 AM
 Distribution on Learning over Complex Adaptive
 Networks
*Sheng-Yuan Tu, Ali H. Sayed, University of California, Los
 Angeles*
- TA4b-3 Discrete-Time Opinion Dynamics 11:05 AM
*Seyed Rasoul Etesami, Angelia Nedic, University of
 Illinois, Urbana-Champaign*
- TA4b-4 Gossiping Information Dissemination 11:30 AM
 Through Distributed Femtocell Caching
Alexandros G. Dimakis, University of Southern California

Session TA5a Image and Video Retrieval

Chair: *Ramakrishna Vedantham, Nokia Research*

- TA5a-1 Mobile Visual Search Using Image and Text 8:15 AM
 Features
*Sam Tsai, Huizhong Chen, David Chen, Stanford
 University; Ramakrishna Vedantham, Radek Grzeszczuk,
 Nokia; Bernd Girod, Stanford University*
- TA5a-2 A Compact Index for Large-Scale Mobile 8:40 AM
 Visual Search
*David Chen, Sam Tsai, Vijay Chandrasekhar, Gabriel
 Takacs, Huizhong Chen, Stanford University;
 Ramakrishna Vedantham, Radek Grzeszczuk, Nokia
 Research Center; Bernd Girod, Stanford University*
- TA5a-3 Multiple-Channel Compact Visual Descriptor 9:05 AM
 with Adaptive Channel Learning
*Rongrong Ji, Harbin Institute of Technology; Ling-Yu
 Duan, Jie Chen, Peking University; Hongxun Yao, Harbin
 Institute of Technology; Tiejun Huang, Wen Gao, Peking
 University*
- TA5a-4 Efficient Re-Ranking in Vocabulary 9:30 AM
 Tree-Based Image Retrieval
*Xiaoyu Wang, University of Missouri; Ming Yang, Kai Yu,
 NEC Laboratories America, Inc.*

Session TA5b Sparse Representations with Applications to Images and Video

Chair: *Trac Tran Tran, Johns Hopkins University*

- TA5b-1 Robust Multi-Dimensional Scaling via 10:15 AM
 Outlier Sparsity Control
*Pedro Forero, Georgios B. Giannakis, University of
 Minnesota*
- TA5b-2 Architectures for Compressive Sampling of 10:40 AM
 Correlated Signals
*Ali Ahmed, Justin Romberg, Georgia Institute of
 Technology*
- TA5b-3 Compressed-Sensing Recovery of Images and 11:05 AM
 Video Using Multi-Hypothesis Predictions
*Chen Chen, Eric Tramel, James Fowler, Mississippi State
 University*

- TA5b-4 Sparsity-Based Human Activity Recognition 11:30 AM
for Mobile Computing Devices
Victor Shia, Allen Yang, Ruzena Bajcsy, University of California, Berkeley
- TA5b-5 Sparsity-Based Face Recognition Using 11:55 AM
Discriminative Graphical Models
Umamahesh Srinivas, Vishal Monga, Pennsylvania State University; Yi Chen, Trac D. Tran, The Johns Hopkins University

Session TA6a Waveform Design and MIMO Radar

Chair: *Visa Koivunen, Aalto University*

- TA6a-1 Cluster Allocation Schemes for Target 8:15 AM
Tracking in Multiple Radar Architectures
Hana Godrich, Princeton University; Athina Petropulu, Rutgers University; H. Vincent Poor, Princeton University
- TA6a-2 Synergistic MIMO SAR and GMTI 8:40 AM
Duc Vu, Luzhou Xu, Jian Li, University of Florida
- TA6a-3 Resource Allocation in Widely Distributed 9:05 AM
MIMO Radars in Non-Ideal Conditions
Tuomas Aittomaki, Aalto University; Hana Godrich, Rutgers University; Visa Koivunen, Aalto University; H. Vincent Poor, Princeton University
- TA6a-4 Centralized and Distributed Tests for Moving 9:30 AM
Target Detection with MIMO Radars in Clutter of Non-Homogeneous Power
Pu Wang, Hongbin Li, Stevens Institute of Technology; Braham Himed, Air Force Research Laboratory

Session TA6b Network Beamforming and Relaying via Multiple Antennas

Chair: *Sergiy Vorobyov, University of Alberta*

- TA6b-1 Collaborative Beamforming in Wireless 10:15 AM
Sensor Networks
Serkan Sayilir, Yung-Hsiang Lu, Dimitrios Peroulis, Y. Charlie Hu, Byunghoo Jung, Purdue University
- TA6b-2 Joint Power Control and Relay Design in 10:40 AM
Underlay Cognitive Networks with Multiple Transmitter-Receiver Pairs
Keyvan Zarifi, Sofiene Affes, INRS-EMT; Ali Ghayeb, Concordia University
- TA6b-3 Beamforming in MIMO Broadcast Relay 11:05 AM
Networks with Multiple Antenna Users
Godfrey Okeke, Yindi Jing, Witold Krzymien, University of Alberta
- TA6b-4 A Relay Selection Approach to Bi-Directional 11:30 AM
Collaborative Communications with Imperfect CSI
Fadhel Al-Humaidi, Shahram ShahbazPanahi, University of Ontario Institute of Technology

Session TA7 Architectures for Wireless Communications

Chair: *Joe Cavallero, Rice University*

- | | | |
|-------|--|----------|
| TA7-1 | An Efficient Architecture for Iterative Soft Reliability-Based Majority-Logic Non-Binary LDPC Decoding
<i>Xinmiao Zhang, Fang Cai, Case Western Reserve University</i> | 8:15 AM |
| TA7-2 | Architecture Exploration, Development and Teaching Platform for Orthogonal Frequency Division Multiplexing (OFDM) Systems
<i>Antonio Mondragon-Torres, Mahesh Kommi, Tamoghna Bhattacharya, Rochester Institute of Technology</i> | 8:40 AM |
| TA7-3 | Improved Iterative Soft-Reliability-Based Majority-Logic Decoding Algorithm for Non-Binary Low-Density Parity-Check Codes
<i>Chenrong Xiong, Zhiyuan Yan, Lehigh University</i> | 9:05 AM |
| TA7-4 | LTE Layer 1 Software Design on Multi-Core DSP Architectures
<i>Arokia Irudayaraj, Michael Brogioli, Nitin Jain, Umang Garg, Freescale Semiconductor, Inc.</i> | 9:30 AM |
| | BREAK | 9:55 AM |
| TA7-5 | Efficient FPGA Implementation of a High Throughput Systolic Array QR-Decomposition Algorithm
<i>Matthias Abels, Till Wiegand, Steffen Paul, University of Bremen</i> | 10:15 AM |
| TA7-6 | Comparison of Performance and Implementation Complexity of Soft-Output Sphere Detectors for MIMO-OFDM Systems
<i>Markus Myllyla, Renesas Mobile Europe Ltd</i> | 10:40 AM |
| TA7-7 | Time and Power Optimization in FPGA Based Architectures for Polyphase Channelizers
<i>Mehmood Awan, Peter Koch, Aalborg University; Fredric Harris, San Diego State University</i> | 11:05 AM |
| TA7-8 | Hardware Implementation of Kuiper-Based Modulation Level Classification
<i>Paulo Urriza, Eric Rebeiz, Danijela Cabric, University of California, Los Angeles</i> | 11:30 AM |

Session TA8a1 Signal Processing Methods for Representation, Analysis, and Control of Biological Systems

Co-Chairs: *Byung-Jun Yoon, Texas A&M and Xiaoning Qian, University of South Florida*

8:15 AM - 9:55 AM

- | | | |
|---------|---|--|
| TA8a1-1 | Exact MSE Performance of the Bayesian MMSE Estimator for Classification Error
<i>Lori A. Dalton, Edward R. Dougherty, Texas A&M University</i> | |
|---------|---|--|

- TA8a1-2 Misaligned Principal Component Analysis (Mis-PCA) for Gene Expression Time Series Analysis
Arnau Tibau-Puig, Alfred O. Hero, University of Michigan
- TA8a1-3 Optimal Intervention Strategies for Cyclic Therapeutic Methods with Fixed-Length Duration of Effect
Mohammadmahdi R. Yousefi, Aniruddha Datta, Edward R. Dougherty, Texas A&M University
- TA8a1-4 Maximum Likelihood Estimation of the Binary Coefficient of Determination
Ting Chen, Ulisses Braga-Neto, Texas A&M University
- TA8a1-5 An MCMC Algorithm for Base Calling in Sequencing-by-Synthesis
Ting Wu, Haris Vikalo, The University of Texas at Austin
- TA8a1-6 Relationships Between Genetic Regulatory Network Models
Mehmet Umut Caglar, Ranadip Pal, Texas Tech University
- TA8a1-7 Bayesian Networks Modeling of Cellular Regulatory Pathways
Chen Zhao, Ivan Ivanov, Texas A&M University; Michael Bitner, Translational Genomics Research Institute; Edward R. Dougherty, Texas A&M University
- TA8a1-8 Haplotype Inference Based on Sparse Dictionary Selection
Guido Hugo Jajamovich, Xiaodong Wang, Columbia University
- TA8a1-9 Surface-Constrained 3D Reconstruction in Cryo-EM
Andrew C. Barthel, Hemant Tagare, Fred J. Sigworth, Yale University
- TA8a1-10 Phenotypically Constrained Stationary Control Policies for Gene Regulatory Network Intervention
Xiaoning Qian, University of South Florida; Edward R. Dougherty, Texas A&M University
- TA8a1-11 Prediction of Cancer Subtypes Using Bayesian Factor Network Model
Jia Meng, The University of Texas at San Antonio; Manuel Sánchez Castillo, University of Granada; Jianqiu Zhang, The University of Texas at San Antonio; Isabel Maria Tienda Luna, University of Granada; Yufei Huang, The University of Texas at San Antonio
- TA8a1-12 Dynamical Processes on Networks: A Unified View
Garrett Jenkinson, John Goutsias, The Johns Hopkins University
- TA8a1-13 A Brief Review of Signal Processing Issues in Mass Spectrometry-Based Proteomics Studies
Chao Yang, Weichuan Yu, Hong Kong University of Science and Technology
- TA8a1-14 Fault Detection and Intervention in Biological Feedback Networks
Ritwik Layek, Aniruddha Datta, Texas A&M University
- TA8a1-15 Fast Global Sequence Alignment Algorithm
Talal Bonny, Khaled Nabil Salama, King Abdullah University of Science and Technology

TA8a1-16 Optimal State Estimation for Boolean Dynamical Systems
Ulisses Braga-Neto, Texas A&M University

Session TA8a2 Receiver Design and Optimization

Chair: *Lara Dolecek, UCLA*

8:15 AM - 9:55 AM

- TA8a2-1 Incorporating Prior Information into Semi-Definite Relaxation of Quadratic Optimization Problems
Jacob (Jake) Gunther, Todd Moon, Utah State University
- TA8a2-2 Diversity of the MMSE Receiver in Flat Fading and Frequency Selective MIMO Channels at Fixed Rate
Florian Dupuy, Thales Communication / Université Paris Est; Philippe Loubaton, Université Paris Est
- TA8a2-3 Predicting the Pruning Potential on the Sphere Decoding for Multiple-Input Multiple-Output Detection
Hwanchol Jang, Gwangju Institute of Science and Technology; Saeid Nooshabadi, Michigan Technological University; Heung-No Lee, Gwangju Institute of Science and Technology
- TA8a2-4 Computationally Efficient Design of the MAE Equalizer for Binary Signaling
Weiwei Zhou, Jill Nelson, George Mason University; Ananya Sen Gupta, Woods Hole Oceanographic Institution
- TA8a2-5 Broadband Doppler Compensation: Principles and New Results
Thomas Riedl, Andrew Singer, University of Illinois, Urbana-Champaign
- TA8a2-6 Optimal Pilot Symbol Power Allocation in Multi-Cell Scenario in LTE
Michal Simko, Markus Rupp, Vienna University of Technology
- TA8a2-7 On the Ergodic Secrecy Capacity of the Wiretap Channel under Imperfect Main Channel Estimation
Zouheir Rezki, King Abdullah University of Science and Technology; Ashish Khisti, University of Toronto; Mohamed-Slim Alouini, King Abdullah University of Science and Technology
- TA8a2-8 On the Stability of DSP Based PI Phase-Locked Loops Containing Matched Filter Delays
Fredric Harris, San Diego State University; Behrouz Farhang-Boroujeny, University of Utah

Session TA8a3 Communications System Design

Chair: *Marco Chiani, University Bologna*

8:15 AM - 9:55 AM

- TA8a3-2 An SDR Architecture for OFDM Transmission over USRP2 Boards
Gilberto Berardinelli, Aalborg University; Per Zetterberg, KTH Royal Institute of Technology; Oscar Tonelli, Andrea F. Cattoni, Troels B. Sørensen, Preben Mogensen, Aalborg University

- TA8a3-3 Environmental-Aware Heterogeneous Partial Feedback Design in a Multi-User OFDMA System
Yichao Huang, Bhaskar D. Rao, University of California, San Diego
- TA8a3-4 Adaptive OFDM for Underwater Acoustic Channels with Limited Feedback
Andreja Radosevic, University of California, San Diego; Tolga Duman, Arizona State University; John Proakis, University of California, San Diego; Milica Stojanovic, Northeastern University
- TA8a3-5 A 512-Point 8-Parallel Pipelined Feedforward FFT for WPAN
Tanvir Ahmed, Mario Garrido, Oscar Gustafsson, Linköping University
- TA8a3-6 On the Convergence of Joint Channel and Mismatch Estimation for Time-Interleaved Data Converters
Sandeep Ponnuru, Upamanyu Madhow, University of California, Santa Barbara
- TA8a3-7 Comparison of Energy- and Spectral-Efficient Design for LTE Downlink Systems
Liyang Li, University of Electronic Science and Technology of China; Jiancun Fan, Xi'an Jiaotong University; Gang Wu, Hongbing Xu, University of Electronic Science and Technology of China; Geoffrey Ye Li, Georgia Institute of Technology
- TA8a3-8 An Efficient Cascade of Half-Band Filters for Software Defined Radio Transmitters
Fredric Harris, Xiaofei Chen, Elettra Venosa, San Diego State University

Session TA8a4 Applications of Array Processing

Chair: *Giuseppe Abreu, Oulu University, Finland*

8:15 AM - 9:55 AM

- TA8a4-2 Detection Properties of Some Sparse Representation Approaches
Jean Jacques Fuchs, Université de Rennes 1
- TA8a4-3 Estimating Bridge Displacement from Acceleration Using Modal Analysis and the Minimum Description Length Principle
Viswanadh Kandula, Linda S. DeBrunner, Victor DeBrunner, Michelle Rambo-Rodenberry, Florida State University
- TA8a4-4 Non-Uniform Sparse Array Design for Active Sensing
Ching-Chih Weng, P. P. Vaidyanathan, California Institute of Technology
- TA8a4-5 MIMO Radar Target Measurements
Kyle Stewart, Mark Frankford, Joel Johnson, Emre Ertin, Ohio State University
- TA8a4-6 Efficient Removal of Noise and Interference in Multichannel Quadrupole Resonance
Naveed Razzaq Butt, Andreas Jakobsson, Lund University

- TA8a4-7 Time Reversal Bayesian Ultrasonic Array Imaging for Non-Destructive Testing
Foroohar Foroozan, Nasim Moallemi, Shahram ShahbazPanahi, University of Ontario Institute of Technology
- TA8a4-8 Energy-Efficient MMSE Beamforming and Power Optimization in Multibeam Satellite Systems
Gan Zheng, Symeon Chatzinotas, Björn Ottersten, SnT, University of Luxembourg
- TA8a4-9 Equidistributed Sampling Sequences for Spectral Analysis
Mustafa Al-Ani, Andrzej Tarczynski, University of Westminster

Session TA8b1 Multiple Antennas in Multi-User Systems and Networks

Chair: *Shuguang Cui, Texas A&M University*

10:15 AM - 12:00 PM

- TA8b1-2 Maximum-Likelihood Decoding in Decode-and-Forward Based MIMO Cooperative Communication Systems
Ankur Bansal, Manav Bhatnagar, Indian Institute of Technology, Delhi; Are Hjørungnes, UNIK, University of Oslo; Zhu Han, University of Houston
- TA8b1-3 Complex Interference Optimization for Power Loss Reduction in MIMO-THP Transmission
Christos Masouros, Mathini Sellathurai, Tharmalingam Ratnarajah, Queen's University Belfast; Ying-Chang Liang, Institute for Infocomm Research
- TA8b1-4 Channel Tracking for D-BLAST for Airborne Platforms
Kapil Borle, Biao Chen, Syracuse University; Michael Gans, Air Force Research Laboratory
- TA8b1-5 Interference Alignment for Multiple-Antenna Amplify-and-Forward Relay Interference Channel
Kien T. Truong, Robert W. Heath, Jr., The University of Texas at Austin
- TA8b1-6 On the Instantaneous Degrees of Freedom of Downlink Interference Channel with Multiuser Diversity
Taejoon Kim, David Love, Purdue University; Bruno Clerckx, Samsung Electronics
- TA8b1-7 On Grouped OFDM-IDMA
Jian Dang, Southeast University; Liuqing Yang, Colorado State University; Zaichen Zhang, Southeast University
- TA8b1-8 Coordinated Multi-Cell Beamforming for LTE-Advanced Systems
Qixing Wang, Guangyi Liu, China Mobile Research Institute; Shuguang Cui, Texas A&M University
- TA8b1-9 Linear Transceiver Design for Interfering Broadcast Channel with QoS Constraints
Meisam Razaviyayn, Zhi-Quan Luo, University of Minnesota
- TA8b1-10 Cooperative Feedback for MIMO Interference Channels
Kaibin Huang, Yonsei University; Rui Zhang, National University of Singapore

- TA8b1-11 Eigen-Mode Transmission for Jointly Correlated MIMO Broadcast Channels
Xiao Li, Shi Jin, Xiqi Gao, Southeast University
- TA8b1-12 How Many Degrees of Freedom Can Be Achieved for Mutually Interfering MIMO Broadcast Channels?
Hyukjin Chae, Sungyoon Cho, Kaibin Huang, Dongku Kim, Yonsei University
- TA8b1-13 Distributed Beamforming Based Directional Spectrum Sharing
Juan Liu, Wei Chen, Zhigang Cao, Tsinghua University; Ying Jun Zhang, Chinese University of Hong Kong
- TA8b1-14 Spatially Efficient Distributed Relay Selection for Random Relay Networks
Sungrae Cho, Wan Choi, Korea Advanced Institute of Science and Technology; Kaibin Huang, Yonsei University
- TA8b1-15 Channel State Information Feedback Control for Interference Alignment
Linyang Song, Peking University; Zhu Han, University of Houston; Shaohui Sun, Datang Mobile; Bingli Jiao, Peking University
- TA8b1-16 Self-Optimized MIMO-OFDMA: A Nash-Stackelberg Game-Theoretic Approach
Jie Ren, Jianjun Hou, Beijing Jiaotong University; Kai-Kit Wong, University College London

Session TA8b2 Cooperative and Cognitive Transmission in Multi-Antenna Systems

Chair: *Daniel Bliss, MIT Lincoln Laboratory*

10:15 AM - 12:00 PM

- TA8b2-1 Cooperative Rate Maximization Based on Base Station Exchange of Powers
Samer Bazzi, Guido Dietl, DoCoMo Communications Laboratories Europe GmbH
- TA8b2-2 Half-Duplex Gaussian Diamond Relay Channel with Interference Known at One Relay
Kagan Bakanoglu, Elza Erkip, Polytechnic Institute of New York University; Osvaldo Simeone, New Jersey Institute of Technology
- TA8b2-3 Interference Management in Femtocell Networks with Hybrid-ARQ and Interference Cancellation
Tania Villa, Eurecom; Ruben Merz, Deutsche Telekom Laboratories; Raymond Knopp, Eurecom
- TA8b2-4 Achievable Degrees of Freedom of the K-User Interference Channel with Partial Cooperation
Ahmed Naguib, Khaled Elsayed, Cairo University; Mohammed Nafie, Nile University
- TA8b2-5 Multicell Downlink Weighted Sum-Rate Maximization: A Distributed Approach
Pradeep Chathuranga Weeraddana, Marian Codreanu, Satya Joshi, Matti Latva-aho, Centre for Wireless Communications

- TA8b2-6 Decentralized Multi-Cell Beamforming Coordination for Multiuser MISO Systems
Harri Pennanen, Antti Tölli, Matti Latva-aho, University of Oulu
- TA8b2-7 Feedback Reduction by Thresholding in Multi-User Broadcast Channels: Design and Limits
Matthew Pugh, Bhaskar D. Rao, University of California, San Diego
- TA8b2-8 Full-Duplex Bidirectional MIMO: Achievable Rates under Limited Dynamic Range
Brian Day, Ohio State University; Daniel Bliss, Adam Margetts, MIT Lincoln Laboratory; Philip Schniter, Ohio State University

Session TA8b3 Adaptive Sensing

Chair: *Jarvis Haupt, University of Minnesota*

10:15 AM - 12:00 PM

- TA8b3-1 Adaptive Search for Sparse Moving Targets under Resource Constraints
Gregory Newstadt, Eran Bashan, Alfred O. Hero, University of Michigan
- TA8b3-2 Adaptive Signal Recovery in Noisy Environments
Mark Iwen, Duke University; Ahmed H. Tewfik, The University of Texas at Austin
- TA8b3-3 On the Limits of Sequential Testing in High Dimensions
Matthew Malloy, Robert Nowak, University of Wisconsin
- TA8b3-4 Active Learning for Adaptive Life-Long Learning
Lawrence Carin, Duke University; Hui Li, Signal Innovations Group
- TA8b3-5 Efficient Adaptive Compressive Sensing Using Sparse Hierarchical Learned Dictionaries
Akshay Soni, Jarvis Haupt, University of Minnesota
- TA8b3-6 Information-Optimal Adaptive Compressive Imaging
Amit Ashok, Mark Neifeld, University of Arizona
- TA8b3-7 On Primary Side Information in Cognitive Radio Networks
May Moussa, Mohammed Nafie, Nile University; Hesham El-Gamal, Ohio State University; Ayman Naguib, Qualcomm Incorporated
- TA8b3-8 Further Results on Adaptive Sequential Detection with One-Sided Stopping and Deadline
Wenyi Zhang, University of Science and Technology of China; Ahmed Sadek, Stephen Shellhammer, Cong Shen, Qualcomm Incorporated

Session TP1a Resource Allocation in Multi-Antenna Systems

Chair: *Neelesh Mehta, Indian Institute of Science*

- TP1a-1 Optimal Power Allocation for Multi-User Transmit Beamforming via Regularized Channel Inversion 1:30 PM
Rusdha Muharar, Jamie Evans, University of Melbourne

- TP1a-2 Capacity Density Optimization by Fractional Frequency Partitioning 1:55 PM
Martin Taranetz, Josep Colom Ikuno, Markus Rupp, Vienna University of Technology
- TP1a-3 Resource Allocation in MIMO Multi-Cellular Networks via Submodular Optimization 2:20 PM
Narayan Prasad, Honghai Zhang, NEC Laboratories America, Inc.; Luca Venturino, University of Cassino; Jubin Jose, The University of Texas at Austin; Sampath Rangarajan, NEC Laboratories America, Inc.
- TP1a-4 Transmit Power Optimization for Multi-Antenna Decode-and-Forward Relays with Loopback Self-Interference from Full-Duplex Operation 2:45 PM
Taneli Riihonen, Stefan Werner, Risto Wichman, Aalto University

Session TP1b Interference Management

Chair: *Aydin Sezgin, University of Ulm*

- TP1b-1 Degrees of Freedom of Multiple Unicasts over Multihop Wireless Networks 3:30 PM
Syed Jafar, University of California, Irvine
- TP1b-2 Optimized Data Symbol Sharing in Multiple-Antenna Interference Channel 3:55 PM
Maha Odeh, Paul De Kerret, David Gesbert, Eurecom
- TP1b-3 On Interference Channels with more than Two Source-Destination Pairs 4:20 PM
Daniela Tuninetti, University of Illinois, Chicago
- TP1b-4 Training and Feedback Optimization For MIMO Interference Alignment in Continuous Fading Channels 4:45 PM
Omar El Ayach, Angel Lozano, Universitat Pompeu Fabra; Robert W. Heath, Jr., The University of Texas at Austin
- TP1b-5 Making Optimal Use of the Asymmetric Interference Channel 5:10 PM
Rachel Learned, MIT Lincoln Laboratory

Session TP2a Cognitive Radio I

Chair: *Oswaldo Simeone, New Jersey Institute of Technology*

- TP2a-1 Joint Link Learning and Cognitive Radio Network Sensing 1:30 PM
Seung-Jun Kim, Georgios B. Giannakis, University of Minnesota
- TP2a-2 Spectrum Sensing via Event-Triggered Sampling 1:55 PM
Yasin Yilmaz, Xiaodong Wang, Columbia University
- TP2a-3 Proactive Resource Allocation in Cognitive Networks 2:20 PM
John Tadrous, Atilla Eryilmaz, Hesham El-Gamal, Ohio State University

- TP2a-4 Correlated Equilibrium Learning Algorithms for Dynamic Spectrum Access 2:45 PM
Jane Wei Huang, Vikram Krishnamurthy, University of British Columbia

Session TP2b Cognitive Radio II

Chair: *Oswaldo Simeone, New Jersey Institute of Technology*

- TP2b-1 Extreme Eigenvalue Distributions of Finite Random Wishart Matrices with Application to Spectrum Sensing 3:30 PM
Giuseppe Abreu, University of Oulu; Wensheng Zhang, Mamiko Inamori, Yukiotoshi Sanada, Keio University
- TP2b-2 Autocorrelation-Based Multi-Antenna Spectrum Sensing in Colored Noise 3:55 PM
Jitendra Tugnait, Auburn University
- TP2b-3 Decentralized Cognition via Randomized Masking 4:20 PM
Kamyar Moshksar, Amir Khandani, University of Waterloo
- TP2b-4 Spectrum Leasing via Cooperative Opportunistic Routing in Distributed Ad Hoc Networks: Optimal and Heuristic Policies 4:45 PM
Cristiano Tapparello, Davide Chiarotto, Michele Rossi, University of Padova; Oswaldo Simeone, New Jersey Institute of Technology; Michele Zorzi, University of Padova
- TP2b-5 A Message-Passing Algorithm for Spectrum Access in Cognitive Radio Relay Networks 5:10 PM
Sang Hyun Lee, Manohar Shamaiah, Sriram Vishwanath, Haris Vikalo, The University of Texas at Austin

Session TP3a Multi-dimensional Compressive Inference

Chair: *Phil Schniter, The Ohio State University*

- TP3a-1 Real-Time Principal Component Pursuit 1:30 PM
Graeme Pope, Manuel Baumann, ETH Zurich; Christoph Studer, Rice University; Giuseppe Durisi, Chalmers University of Technology
- TP3a-2 Low Rank Variational Tensor Recovery for Multi-Linear Inverse Problems 1:55 PM
Hatim Alqadah, H. Howard Fan, University of Cincinnati
- TP3a-3 Optimized Measurements for Kernel Compressive Sensing 2:20 PM
Karthikeyan Natesan Ramamurthy, Andreas Spanias, Arizona State University
- TP3a-4 Efficient Message Passing-Based Inference in the Multiple Measurement Vector Problem 2:45 PM
Justin Ziniel, Philip Schniter, Ohio State University

Session TP3b Advances in Adaptive and Distributed Filtering

Chair: *Vitor Nascimento, University of Sao Paulo*

- TP3b-1 Continuous-Time Distributed Estimation 3:30 PM
Vitor Nascimento, University of Sao Paulo; Ali H. Sayed, University of California, Los Angeles
- TP3b-2 Sequential Likelihood Consensus and 3:55 PM
Application to Distributed Particle Filtering with
Reduced Communications and Latency
Ondrej Sluciak, Ondrej Hlinka, Markus Rupp, Franz Hlawatsch, Vienna University of Technology; Petar Djuric, Stony Brook University
- TP3b-3 A Unifying Framework for the Analysis of 4:20 PM
Quaternion-Valued Adaptive Filters
Clive Cheong Took, Cyrus Jahanchahi, Danilo Mandic, Imperial College London
- TP3b-4 Joint Conditional and Steady-State 4:45 PM
Probability Densities of Weight Deviations for
Proportionate-Type LMS Algorithms
Kevin Wagner, Naval Research Laboratory; Miloš Doroslovacki, George Washington University
- TP3b-5 Fast and Superfast Computations in 5:10 PM
Structured Equalization Scenarios
Ricardo Merched, Universidade Federal do Rio de Janeiro

Session TP4a Communication Management in Robot Networks

Chair: *Michael Zavlanos, Stevens Institute of Technology*

- TP4a-1 Co-Optimization of Communication and 1:30 PM
Motion Planning of a Robotic Operation in Fading
Environments
Yuan Yan, Yasamin Mostofi, University of New Mexico
- TP4a-2 A Framework for Integrating Mobility and 1:55 PM
Routing in Mobile Communication Networks
Michael M. Zavlanos, Stevens Institute of Technology; Alejandro Ribeiro, George J. Pappas, University of Pennsylvania
- TP4a-3 Multi-Robot Path Following with Visual 2:20 PM
Connectivity
Magnus Lindhé, Royal Institute of Technology; Tamas Keviczky, Delft University of Technology; Karl Henrik Johansson, Royal Institute of Technology
- TP4a-4 Communication Network Challenges for 2:45 PM
Collaborative Vehicles
Pedram Hovareshti, Chen Hua, John Baras, University of Maryland

Session TP4b Distributed Storage Systems

Chair: *Alex Dimakis, University of Southern California*

- TP4b-1 Codes for Robust Scalable Distributed Video-on-Demand Systems 3:30 PM
Sameer Pawar, Salim El Rouayheb, Hao Zhang, University of California, Berkeley; Parimal Parag, Texas A&M University; Kannan Ramchandran, University of California, Berkeley
- TP4b-2 Error Coding for Long-Term Archival Storage Systems 3:55 PM
Ethan Miller, Ian Adams, Jingpei Yang, Daniel Rosenthal, Darrell Long, University of California, Santa Cruz
- TP4b-3 Theoretical Problems in Fault-Tolerant Distributed Storage 4:20 PM
James Plank, University of Tennessee
- TP4b-4 Survey of Non-MDS Erasure Codes for Distributed Storage Systems 4:45 PM
Jay Wylie, Hewlett-Packard Labs

Session TP5 Compressive Sensing for Radar

Chair: *Rabinder Madan, U.S. Office of Naval Research*

- TP5-1 Compressive Sensing: Snake Oil or Good Idea? 1:30 PM
Fred Daum, Raytheon
- TP5-2 Compressive Sensing for Synthetic Aperture Radar in Fast-Time and Slow-Time Domains 1:55 PM
Qilian Liang, The University of Texas at Arlington
- TP5-3 Comparison of Compressed Sensing, MAP, and MMOSPA Estimation for Radar Superresolution 2:20 PM
David Crouse, Peter Willett, University of Connecticut; Lennart Svensson, Chalmers University; Yaakov Bar-Shalom, University of Connecticut
- TP5-4 Support Recovery in Compressive Sensing for Estimation of Direction-of-Arrival 2:45 PM
Zhiyuan Weng, Xin Wang, Stony Brook University
- BREAK 3:10 PM
- TP5-5 Explore Group Sparsity for Compressive Sensing Based MIMO Radar 3:30 PM
Yao Yu, Athina Petropulu, Junzhou Huang, Rutgers University
- TP5-6 On the Role of Waveform Diversity in MIMO Radar 3:55 PM
Benjamin Friedlander, University of California, Santa Cruz
- TP5-7 Non-Coherent Compressive Sensing for MIMO Radar with Widely Separated Antennas 4:20 PM
Christian Berger, Jose' Moura, Carnegie Mellon University

- TP5-8 Global Methods for Compressive Sensing in MIMO Radar with Distributed Sensors 4:45 PM
Marco Rossi, Alexander M. Haimovich, New Jersey Institute of Technology; Yonina C. Eldar, Technion-Israel Institute of Technology

Session TP6a Source Localization

Chair: *Muralidhar Rangaswamy, Purdue University*

- TP6a-1 Robust Time-Based Localization for Asynchronous Networks with Clock Offsets 1:30 PM
Yiyin Wang, Delft University of Technology; Xiaoli Ma, Georgia Institute of Technology; Geert Leus, Delft University of Technology
- TP6a-2 Conditioned MDS with Heterogeneous Information 1:55 PM
Davide Macagnano, Giuseppe Abreu, University of Oulu
- TP6a-3 Cooperative Multihop Localization with Privacy 2:20 PM
Golaleh Rahmatollahi, Leibniz University Hannover; Giuseppe Abreu, University of Oulu; Stefano Severi, University of Bologna
- TP6a-4 Design and Performance of an Integrated Waveform-agile Multi-Modal Track-before-Detect Sensing System 2:45 PM
Jun Jason Zhang, Arizona State University; Surendra Bhat, Pennsylvania State University; Quan Ding, University of Rhode Island; Antonia Papandreou-Suppappola, Arizona State University; Ram Narayanan, Pennsylvania State University; Steven Kay, University of Rhode Island; Muralidhar Rangaswamy, Air Force Research Laboratory

Session TP6b Array Processing for Satellite Communications

Chair: *Michael Joham, Technical University Munich*

- TP6b-1 On the Capacity of Multi-Beam Joint Decoding over Composite Satellite Channels 3:30 PM
Dimitrios Christopoulos, Symeon Chatzinotas, University of Luxembourg; Michail Matthaiou, Chalmers University of Technology; Björn Ottersten, University of Luxembourg
- TP6b-2 User Scheduling for Large Multi-Beam Satellite MIMO Systems 3:55 PM
Matteo Berlioli, Vincent Boussemart, Francesco Rossetto, German Aerospace Center (DLR)
- TP6b-3 Multi-User Interference Mitigation Techniques for Broadband Multi-Beam Satellite Systems 4:20 PM
Ilaria Thibault, Francesco Lombardo, Enzo A. Candreva, Alessandro Vanelli-Coralli, Giovanni E. Corazza, University of Bologna

- TP6b-4 Advanced Interference Mitigation Techniques 4:45 PM
 for the Forward Link of Multi-Beam Broadband
 Satellite Systems
*Bertrand Devillers, Centre Tecnològic de
 Telecomunicacions de Catalunya (CTTC); Ana Pérez-
 Neira, Universitat Politècnica de Catalunya*
- TP6b-5 Performance Evaluation of a Satellite 5:10 PM
 Diversity System Employing Compact MIMO-
 Octahedron Antenna
*Tommy Hult, Lund University; Abbas Mohammed,
 Blekinge Institute of Technology; Zhe Yang, Lund
 University*

Session TP7a Adaptive and Evolvable Architectures

Chair: *Andy Tyrrell, University of York, UK*

- TP7a-1 A Programmable Analog and Digital Array 1:30 PM
 for Bio-Inspired Electronic Design Optimization at
 Nano-Scale Silicon Technology Nodes
*Martin Trefzer, James Walker, Andy Tyrrell, University of
 York*
- TP7a-2 Evolved Defect Tolerant Structures for FPGA 1:55 PM
 Architectures
*Pauline Haddow, Norwegian University of Science and
 Technology*
- TP7a-3 Improved Learning in an Evolvable Oscillator 2:20 PM
 for In-Flight Controller Adaptation in a Flapping-
 Wing Micro Air Vehicle
*Gallagher John, Wright State University; Michael
 Oppenheimer, Air Force Research Laboratory*
- TP7a-4 Using Discrete Fourier Transforms to Detect 2:45 PM
 Operational Environments for Autonomous Non-
 Linear Systems
Garrison Greenwood, Portland State University

Session TP7b Computer Arithmetic II

Chair: *Neil Burgess, ARM, Inc. USA*

- TP7b-1 The Fully-Serial Pipelined Multiplier 3:30 PM
*Andrew Shafer, Advanced Micro Devices; Lyndsi Parker,
 IBM; Earl Swartzlander, The University of Texas at Austin*
- TP7b-2 Special-Purpose Crypto Hardware 3:55 PM
 Accelerators for 45nm High-Performance
 Microprocessors
Sanu Mathew, Ram Krishnamurthy, Intel Corporation
- TP7b-3 Energy-Efficient Floating-Point Arithmetic 4:20 PM
 for Low-Power Digital Signal Processors
*Syed Z. Gilani, Nam Sung Kim, University of Wisconsin-
 Madison; Michael J. Schulte, Advanced Micro Devices*
- TP7b-4 Testing Fused Multiply Add Implementations 4:45 PM
David Lutz, Neil Burgess, Sabrina Romero, ARM

TP7b-5 Shared Implementation of Radix-10 and Radix-16 Division Algorithm with Limited Precision Primitives 5:10 PM
Milos D. Ercegovic, University of California, Los Angeles; Robert McIlhenny, California State University, Northridge

Session TP8a1 Techniques for Space-Time Signal Processing

Chair: *Kaibin Huang, Yonsei University, S. Korea*

1:30 PM - 3:10 PM

- TP8a1-1 Equivalent Codes and Optimality of Orthogonal Space-Time Block Codes
Alex Geyer, Sergiy Vorobyov, Norman Beaulieu, University of Alberta
- TP8a1-3 Sparse Space-Time Equalization with L1 Norm
Laura Slivinski, Brown University; Adam Margetts, Daniel Bliss, Massachusetts Institute of Technology
- TP8a1-4 Weighted Sum-Rate Maximization for MISO Downlink Cellular Networks via Branch and Bound
Satya Joshi, Pradeep Chathuranga Weeraddana, Marian Codreanu, Matti Latva-aho, Centre for Wireless Communications
- TP8a1-5 Low Complexity Generalized Geometric Mean Decomposition and DFE Transceiver Design
Chih-Hao Liu, P. P. Vaidyanathan, California Institute of Technology
- TP8a1-6 Worst-Case Robust Multiuser Transmit Beamforming Using Semidefinite Relaxation: Duality and Implications
Tsung-Hui Chang, National Tsing Hua University; Wing-Kin Ma, Chinese University of Hong Kong; Chong-Yung Chi, National Tsing Hua University
- TP8a1-7 Transmitter Optimization for MIMO Systems with Mutual Coupling at High SNR
Peng Li, Hong Kong University of Science and Technology; Liang Sun, Alcatel-Lucent Shanghai Bell; Matthew McKay, Ross Murch, Hong Kong University of Science and Technology
- TP8a1-8 Robust Joint Optimization of Non-Regenerative MIMO Relay Channels with Imperfect CSI
Ebrahim A. Gharavol, Erik G. Larsson, Linköping University

Session TP8a2 Statistical and Array Signal Processing for Biomedical Applications

Chair: *Monica Bugallo, University of Stony Brook*

1:30 PM - 3:10 PM

- TP8a2-1 ECG De-Noising Using a Dynamical Model and a Marginalized Particle Filter
Chao Lin, TéSA Laboratory; Monica Bugallo, Stony Brook University; Corinne Mailhes, Jean-Yves Tournet, University of Toulouse
- TP8a2-2 Beta Dirichlet Process Mixture Model Based Clustering of DNA Methylation Array Data
Jia Meng, Yufei Huang, The University of Texas at San Antonio; Lin Zhang, China University of Mining and Technology
- TP8a2-3 Neonatal Seizure Detection Using Multi-Channel Blind Information Fusion
Huaying Li, Aleksandar Jeremic, McMaster Univeristy; Kenneth Tan, University of Melbourne
- TP8a2-4 A Novel Approach to Automated Fetal Heart Rate Analysis
Shishir Dash, Petar Djuric, Stony Brook University
- TP8a2-5 Joint Waveform and Firing Rate Spike-Sorting for Continuous Extracellular Traces
Brett Matthews, Mark Clements, Georgia Institute of Technology
- TP8a2-6 Statistical Design of Position-Encoded Microsphere Arrays at Low Target Concentrations
Xiaoxiao Xu, Washington University in St. Louis; Pinaki Sarder, Washington University School of Medicine in St. Louis; Arye Nehorai, Washington University in St. Louis
- TP8a2-7 Biosensor Arrays for Collaborative Detection of Analytes
Maryam Abolfath-Beygi, Vikram Krishnamurthy, University of British Columbia
- TP8a2-8 Developing Movement Direction Decoders from Local Field Potentials
Vijay Aditya Tadipatri, Ahmed H. Tewfik, The University of Texas at Austin; James Ashe, Guiseppe Pellizzer, VA Medical Center, Minneapolis

Session TP8a3 Sensor Networks

Chair: *Soumya Kar, Carnegie Mellon University*

1:30 PM - 3:10 PM

- TP8a3-1 Dual Trust Secure Protocol for Cluster-Based Wireless Sensor Networks
Yang Li, Melody Moh, San Jose State University
- TP8a3-2 User Clustering and Energy Efficient Cooperation in Cellular Networks
Jinhong Wu, George Washington University; Harry (Zhibing) Chen, Yong Liu, Liyu Cai, Alcatel-Lucent Shanghai Bell

- TP8a3-3 Optimization of Exponential Error Rates for a Suboptimum Fusion Rule in Wireless Sensor Networks
John Gubner, University of Wisconsin-Madison; Louis Scharf, Edwin Chong, Colorado State University
- TP8a3-4 Collaborative Estimation in Dispersive Environments: A Frequency Domain Approach
Sriram Venkateswaran, Upamanyu Madhow, University of California, Santa Barbara
- TP8a3-5 Distributed Support Vector Machines in Sensor-Actuator Networks
Juo-Yu (Joseph) Lee, Kung Yao, University of California, Los Angeles
- TP8a3-6 Step-Size Sequence Design for Finite-Time Distributed Average Consensus
Alain Kibangou, University Joseph Fourier/CNRS
- TP8a3-7 Target Localization in Sensor Networks with Quantized Data in the Presence of Byzantine Attacks
Keshav Agrawal, Aditya Vempaty, Indian Institute of Technology, Kanpur; Hao Chen, Boise State University; Pramod Varshney, Syracuse University
- TP8a3-8 Uniformly Most Powerful Distributed Detection and its Application in Cooperative Spectrum Sensing
Hao Chen, Uri Rogers, Boise State University

Session TP8a4 Wireless Networks

Chair: *Vivek Cadambe, University of California, Irvine*

1:30 PM - 3:10 PM

- TP8a4-1 Dynamic Pricing under Binary Demand Uncertainty: A Multi-Armed Bandit with Correlated Arms
Yixuan Zhai, Qing Zhao, University of California, Davis
- TP8a4-2 Optimal Routing with Mutual Information Accumulation in Wireless Networks
Rahul Uргаonkar, Raytheon BBN Technologies; Michael Neely, University of Southern California
- TP8a4-3 Optimal Scheduling of Real-Time Messages in Peer-to-Peer Wireless Networks
Juan Jose Jaramillo, Shihuan Liu, Lei Ying, Iowa State University
- TP8a4-4 State-Based Single Channel Selection in Multi-Channel Wireless Networks
Brian Phillips, Murali Tummala, John McEachen, Naval Postgraduate School
- TP8a4-5 Robust Joint Transceiver Beamforming for Cognitive Radio Network
Huiqin Du, Tharmalingam Ratnarajah, Queen's University Belfast; C. B. Papadias, Athens Information Technology
- TP8a4-6 Probabilistic Power Control for Heterogeneous Cellular Networks with Closed-Access Femtocells
Ralf Bendlin, Yih-Fang Huang, University of Notre Dame; Josef A. Nossek, Munich University of Technology

- TP8a4-7 Pricing and Bandwidth Allocation Problems in Wireless Multi-Tier Networks
Camila Maria Gabriel Gussen, Universidade Federal do Rio de Janeiro; Elena Veronica Belmega, M erouane Debbah, Sup elec
- TP8a4-8 Joint Power and Rate Control for Coded Wireless Packet Networks
Ketan Rajawat, Nikolaos Gatsis, Emiliano Dall'Anese, Georgios B. Giannakis, University of Minnesota

Session TP8b1 Machine-Learning-Based Statistical Signal Processing

Chair: *Phil Schniter, The Ohio State University*

3:30 PM - 5:10 PM

- TP8b1-1 Shrinkage Fisher Information Embedding of High Dimensional Feature Distributions
Xu Chen, Yilun Chen, Alfred O. Hero, University of Michigan
- TP8b1-2 Adaptive Learning of Immunosignaturing Peptide Array Features for Biothreat Detection and Classification
Anna Malin, Jun Jason Zhang, Bhavana Chakraborty, Narayan Kovvali, Antonia Papandreou-Suppappola, Stephen Johnston, Phillip Stafford, Arizona State University
- TP8b1-3 Sparse Classification of RF Transients Using Chirplets and Learned Dictionaries
Daniela Moody, Steven Brumby, Kary Myers, Norma Pawley, Los Alamos National Laboratory
- TP8b1-4 Exploiting Random Matrix Theory to Improve Subspace-Based Classification
Nicholas Asendorf, Raj Rao Nadakuditi, University of Michigan
- TP8b1-5 Non-Linear Unmixing of Hyperspectral Images with Kernels
Jie Chen, Universit  de Technologie de Troyes; C dric Richard, Universit  de Nice Sophia-Antipolis; Paul Honeine, Universit  de Technologie de Troyes
- TP8b1-6 Modulation Classification of MIMO-OFDM Signals by Independent Component Analysis and Support Vector Machines
Handan Agirman-Tosun, Alexander M. Haimovich, Osvaldo Simeone, New Jersey Institute of Technology; Wei Su, U.S. Army CERDEC Aberdeen Proving Ground; Jason Dabin, U.S. Navy SPAWAR SCP; Emmanuel Kanterakis, CACI International
- TP8b1-7 A Measure of Difference between Discrete Sample Sets
Debejyo Chakraborty, General Motors Company; Narayan Kovvali, Arizona State University
- TP8b1-8 On l_1 Mean and Variance Filtering
Bo Wahlberg, Cristian R. Rojas, Mariette Annergren, KTH Royal Institute of Technology

Session TP8b2 Network Information Theory

Chair: Daniela Tuninetti, University of Illinois at Chicago

3:30 PM - 5:10 PM

- TP8b2-1 Information-Theoretic Limits of Dense Underwater Networks
Won-Yong Shin, Harvard University; Daniel Lucani, Universidade do Porto; Muriel Medard, Massachusetts Institute of Technology; Milica Stojanovic, Northeastern University; Vahid Tarokh, Harvard University
- TP8b2-2 A Two-Way Secrecy Scheme for the Scalar Broadcast Channel with Internal Eavesdroppers
Chee Yen Leow, Imperial College London; Dennis L. Goeckel, University of Massachusetts; Kin K. Leung, Imperial College London
- TP8b2-3 Relaying for Multiple Sources in the Absence of Codebook Information
Ye Tian, Aylin Yener, Pennsylvania State University
- TP8b2-4 Compound Codes for Optimal Repair in MDS Code Based Distributed Storage Systems
Viveck Cadambe, University of California, Irvine; Cheng Huang, Microsoft Research; Jin Li, Sanjeev Mehrotra, Microsoft Research Redmond
- TP8b2-5 Effects of Range Expansion and Interference Coordination on Capacity and Fairness in Heterogeneous Networks
Sayandev Mukherjee, Ismail Guvenc, DoCoMo USA Labs
- TP8b2-6 An Extended Etkin-Type Outer Bound on the Capacity of the Gaussian Interference Channel
Anas Chaaban, Aydin Sezgin, University of Ulm
- TP8b2-7 Communication Strategies to Ensure Generic Networked Observability in Multi-Agent Systems
Mohammadreza Doostmohammadian, Usman A. Khan, Tufts University
- TP8b2-8 Error Probability Bounds for Binary Relay Trees with Unreliable Communications
Zhenliang Zhang, Ali Pezeshki, Colorado State University; William Moran, University of Melbourne; Stephen Howard, Defence Science and Technology Organization; Edwin Chong, Colorado State University

Session WA1a Channel Estimation for Multi-Antenna Systems

Chair: Jakob Hoydis, Supélec

- WA1a-1 Close-Range Outdoor Wireless Channel Sounding 8:15 AM
Scott E. Johnston, Paul D. Fiore, MIT Lincoln Laboratory
- WA1a-2 Channel Aging Effects in CoMP Transmission: Gains from Linear Channel Prediction 8:40 AM
Lars Thiele, Bho Matthiesen, Michael Olbrich, Konstantinos Manolakis, Slawomir Stanczak, Fraunhofer Heinrich Hertz Institute

WA1a-3 A Modified Compressed Sampling Matching Pursuit Algorithm on Redundant Dictionary and Its Application to Sparse Channel Estimation on OFDM 9:05 AM
Chulong Chen, Michael Zoltowski, Purdue University

WA1a-4 Asymptotic Analysis of Double-Scattering Channels 9:30 AM
Jakob Hoydis, Romain Couillet, M erouane Debbah, Sup elec

Session WA1b MIMO Radar and SAR

Chair: *Benjamin Friedlander, University of California, Santa Cruz*

WA1b-1 On Spatial Processing in MIMO Radar 10:15 AM
Benjamin Friedlander, University of California, Santa Cruz

WA1b-2 Subspace Fitting Based Autofocus for Stripmap SAR 10:40 AM
Roger West, Jacob (Jake) Gunther, Todd Moon, Utah State University

WA1b-3 Doppler Estimation and Compensation in MIMO Radar with Unitary Waveform Scheduling 11:05 AM
Tariq Qureshi, Michael Zoltowski, Purdue University; Robert Calderbank, Duke University

WA1b-4 On the Use of Fractional Autocorrelation to Correct Mismatches for Chirp Scale Focusing for Real SAR Image Formation 11:30 AM
Judith Northrop, Antonia Papandreou-Suppappola, Arizona State University

Session WA2a OFDM

Chair: *Antonia Maria Tulino, Bell-Labs*

WA2a-1 Low Complexity EM-Based Decoding for OFDM Systems with Impulsive Noise 8:15 AM
Marcel Nassar, Brian Evans, The University of Texas at Austin

WA2a-2 Accurate Characterization and Compensation of Phase Noise in OFDM Receiver 8:40 AM
Pramod Mathecken, Taneli Riihonen, Stefan Werner, Risto Wichman, Aalto University

WA2a-3 Linear Programming for Tone Reservation based IM/DD Optical OFDM Communications 9:05 AM
Liang Chen, NICTA Victoria Research Laboratory; Yusheng Ji, National Institute of Informatics; Brian Krongold, Jamie Evans, NICTA Victoria Research Laboratory

WA2a-4 Analytical Link Performance Evaluation of LTE Downlink with Carrier Frequency Offset 9:30 AM
Qi Wang, Markus Rupp, Vienna University of Technology

Session WA2b Beamforming

Chair: *Michael Joham, Technical University Munich*

- WA2b-1 Design of Beamforming in the Satellite Downlink with Static and Mobile Users 10:15 AM
Andreas Gründinger, Michael Joham, Wolfgang Utschick, Technische Universität München
- WA2b-2 Array and Beamformer Design for Optimal Directivity 10:40 AM
Jean Jacques Fuchs, Université de Rennes 1
- WA2b-3 Coordinating Complementary Waveforms for Sidelobe Suppression 11:05 AM
Wenbing Dang, Ali Pezeshki, Colorado State University; Stephen Howard, Defence Science and Technology Organisation; William Moran, University of Melbourne; Robert Calderbank, Duke University
- WA2b-4 Robust Transmit Nulling in Phased Array Antennas 11:30 AM
Peter Vouras, Jean DeGraaf, Naval Research Laboratory

Session WA3a Information Theoretic Signal Processing

Chair: *John Walsh, Drexel University*

- WA3a-1 Modeling Noisy Feedback in Decentralized Self-Configuring Networks 8:15 AM
Samir Medina Perlaza, Mérouane Debbah, Supélec
- WA3a-2 Local Failure Localization in Large Sensor Networks 8:40 AM
Romain Couillet, Supélec; Walid Hachem, CNRS-Telecom ParisTech
- WA3a-3 Cooperative Radar Techniques: The Two-Step Detector 9:05 AM
Max Scharrenbroich, Michael Zatman, QinetiQ North America
- WA3a-4 Studying on Performance Behavior of the Compressive Sensing Measurements for Multiple Sensor System 9:30 AM
Sangjun Park, Hwanchol Jang, Heung-No Lee, Gwangju Institute of Science and Technology

Session WA3b Compressive Imaging and Detection

Chair: *Aleksandar Dogandzic, Iowa State University*

- WA3b-1 Multi-Static Radar Imaging via Bayesian Shrinkage 10:15 AM
Raghu Raj, U.S. Naval Research Laboratory; Zachary Chance, David Love, Purdue University
- WA3b-2 A Mask Iterative Hard Thresholding Algorithm for Sparse Image Reconstruction with Known Object Contour 10:40 AM
Aleksandar Dogandzic, Kun Qiu, Iowa State University

- WA3b-3 Sensor Calibration Errors in Compressive Distributed-Aperture Radar Sensing 11:05 AM
Peter Tuuk, Amy Sharma, Georgia Tech Research Institute
- WA3b-4 Application of Compressive Sampling and Detection to Spectral Target Signatures 11:30 AM
Lawrence E. Hoff, Hoff Engineering; David Buck, Brian T. Williams, SPAWAR System Center; Edward M. Winter, Technical Research Associates; Miaoli Yu, SAIC

Session WA4a Cooperation & Relays

Chair: *Emiliano Dall'Anese, University of Minnesota*

- WA4a-1 The Gaussian Two-way Relay Channel With Wiretapper 8:15 AM
Sungsoo Kim, The University of Texas at Austin; Won-Yong Shin, Harvard University; Koji Ishibashi, Shizuoka University
- WA4a-2 On-Demand Cooperation with Power Control: Protocol and Experimental Results 8:40 AM
Christopher Hunter, Myuran Kanga, Lin Zhong, Ashutosh Sabharwal, Rice University
- WA4a-3 A Practical Physical-Layer Network Coding Scheme for the Uplink of the Two-Way Relay Channel 9:05 AM
Stephan Pfletschinger, Centre Tecnològic de Telecomunicacions de Catalunya (CTTC)
- WA4a-4 Empowering Full-Duplex Communication by Exploiting Directional Diversity 9:30 AM
Evan Everett, Melissa Duarte, Rice University; Chris Dick, Xilinx, Inc.; Ashutosh Sabharwal, Rice University

Session WA4b Multiuser Information Theory

Chair: *Aylin Yener, Pennsylvania State University*

- WA4b-1 Intrinsic Multicast Region of Broadcast Channel 10:15 AM
Mohammad (Amir) Khojastepour, NEC Laboratories America, Inc; Alireza Keshavarz-haddad, Shiraz University
- WA4b-2 On the Gaussian Z-Interference Channel with Processing Energy Cost 10:40 AM
Xi Liu, Elza Erkip, Polytechnic Institute of New York University
- WA4b-3 On the Sum Capacity of the Y-Channel 11:05 AM
Anas Chaaban, Aydin Sezgin, University of Ulm; Amir Salman Avestimehr, Cornell University
- WA4b-4 Interference Channels with Source Cooperation in the Strong Cooperation Regime: Symmetric Capacity to within 2 bits/s/Hz with Dirty Paper Coding 11:30 AM
Shuang (Echo) Yang, Daniela Tuninetti, University of Illinois, Chicago

Session WA5a Signal Theory and Image Representation

Chair: *P. P. Vaidyanathan, California Institute of Technology*

- | | | |
|--------|---|---------|
| WA5a-1 | Theory and Design of Unequal Order Analysis and Synthesis Filterbanks
<i>Asha Vijayakumar, Anamitra Makur, Nanyang Technological University</i> | 8:15 AM |
| WA5a-2 | Learning Dictionaries for Local Sparse Coding in Image Classification
<i>Jayaraman J. Thiagarajan, Andreas Spanias, Arizona State University</i> | 8:40 AM |
| WA5a-3 | Designing Thin Wavelet Filters
<i>Youngmi Hur, Fang Zheng, The Johns Hopkins University</i> | 9:05 AM |
| WA5a-4 | Estimation of Signal Subspace-Constrained Inputs to Linear Systems
<i>Alex Fink, Andreas Spanias, Arizona State University</i> | 9:30 AM |

Session WA5b Biometrics

Chair: *Marios Savvides Savvides, Carnegie Mellon University*

- | | | |
|--------|---|----------|
| WA5b-1 | High Resolution Face Log from Surveillance Video
<i>Thang Ba Dinh, Jongmoo Choi, Gérard Medioni, University of Southern California</i> | 10:15 AM |
| WA5b-2 | Quality Driven Face Recognition System for Surveillance Cameras
<i>Saad Bedros, Yadhunandan U.S., Gurumurthy Swaminathan, Honeywell</i> | 10:40 AM |
| WA5b-3 | Improved Iris Segmentation Based on Local Texture Statistics
<i>Vishnu Naresh Boddeti, B.V.K. Vijaya Kumar, Krishnan Ramkumar, Carnegie Mellon University</i> | 11:05 AM |
| WA5b-4 | Radio Frequency Cardiopulmonary Waveform for Subject Identification
<i>Marc O Griofa, Noninvasive Medical Technologies, Incorporated; Rebecca Blue, Orlando Health; Robert Friedman, Noninvasive Medical Technologies, Incorporated; Madhusudan Bhagavatula, Aaron Jaech, Siying Hu, Marios Savvides, Carnegie Mellon University</i> | 11:30 AM |

Session WA6a Computational Aspects in Array Processing

Chair: *Christ Richmond, MIT*

- | | | |
|--------|--|---------|
| WA6a-1 | Fast Implementation of Sparse Iterative Covariance-Based Estimation for Array Processing
<i>Qilin Zhang, Habti Abeida, Ming Xue, William Rowe, Jian Li, University of Florida</i> | 8:15 AM |
| WA6a-2 | Performance of Sample Covariance Based Capon Bearing Only Tracker
<i>Christ Richmond, Robert Geddes, MIT Lincoln Laboratory; Ramis Movassagh, Alan Edelman, Massachusetts Institute of Technology</i> | 8:40 AM |

- WA6a-3 Some Problems in the Analysis of Possibly Cyclostationary Data 9:05 AM
David J. Thomson, Queen's University
- WA6a-4 Extended Summary for Sidelobe Level Distribution for Linear and Planar Random Arrays with Arbitrary Element Distributions 9:30 AM
Siddhartha Krishnamurthy, MIT Lincoln Laboratory / Harvard University; Daniel Bliss, MIT Lincoln Laboratory; Vahid Tarokh, Harvard University

Session WA6b Source Separation

Chair: *Wing-Kin Ma, Chinese University of Hong Kong*

- WA6b-1 Comparison of Varieties of Kalman Filtering Algorithms Applied to Single Microphone Blind Audio Source Separation 10:15 AM
Siouar Bensaid, Dirk Slock, Eurecom
- WA6b-2 Insights into the Frequency Domain ICA/IVA Approach 10:40 AM
Wenyi Zhang, UBS; Alireza Masnadi-Shirazi, Bhaskar D. Rao, University of California, San Diego
- WA6b-3 Blind Identification of Mixtures of Quasi-Stationary Sources Using a Khatri-Rao Subspace Approach 11:05 AM
Ka-Kit Lee, Wing-Kin Ma, Chinese University of Hong Kong; Yi-Lin Chiou, Tsung-Han Chan, Chong-Yung Chi, National Tsing Hua University
- WA6b-4 Improved Subspace Intersection Based on Signed URV Decomposition 11:30 AM
Mu Zhou, Alle-Jan van der Veen, Delft University of Technology

Session WA7a Multi-core/GPU Implementation

Chair: *Jorn Jannick, Lund University, Sweden*

- WA7a-1 GPGPU Accelerated Scalable Parallel Decoding of LDPC Codes 8:15 AM
Guohui Wang, Michael Wu, Yang Sun, Joseph R. Cavallaro, Rice University
- WA7a-2 A High-Performance Area-Efficient AES Encipher on a Many-Core Platform 8:40 AM
Bin Liu, Bevan Baas, University of California, Davis
- WA7a-3 Parallel Implementation of the Wideband Coherent Signal-Subspace (CSS) Based DOA Algorithm on Single core, Multicore and GPU 9:05 AM
Mohammad Wadood Majid, Mohsin Jamali, University of Toledo
- WA7a-4 A Fine-Grained Parallel Implementation of a H.264/AVC Encoder on a 167-Processor Computational Platform 9:30 AM
Zhibin Xiao, University of California, Davis; Stephen Le, Intel Corporation; Bevan Baas, University of California, Davis

Session WA7b Reconfigurable Architectures, Algorithms and Applications

Chair: *Kenneth Jenkins, Pennsylvania State University*

- WA7b-1 Designs of Angle-Rotation in Digital Frequency Synthesizer/Mixer Using Multi-Stage Architectures 10:15 AM
Shen-Fu Hsiao, Cheng-Han Lee, Yen-Chun Cheng, National Sun Yat-sen University; Andrew Lee, University of California, Berkeley
- WA7b-2 Exploration of Sign Precomputation-Based CORDIC in Reconfigurable Systems 10:40 AM
Scott Miller; Dian Ross, Mihai Sima, Michael McGuire, University of Victoria
- WA7b-3 A Reduced Routing Network Architecture for Partial Parallel LDPC Decoders 11:05 AM
Houshmand Shirani-Mehr, University of California, Davis; Tinoosh Mohsenin, University of Maryland, Baltimore County; Bevan Baas, University of California, Davis
- WA7b-4 Automatic FFT Code Generation for FPGA with High Flexibility and Human Readability 11:30 AM
John O'Sullivan, Institute for System Level Integration / Steepest Ascent Ltd.; Stephan Weiss, University of Strathclyde; Garrey Rice, Steepest Ascent Ltd.

Author List

NAME	SESSION	NAME	SESSION
Abeida, Habti	WA6a-1	Bartos, Anthony	MP8a2-6
Abels, Matthias	TA7-5	Bashan, Eran	TA8b3-1
Abolfath-Beygi, Maryam	TP8a2-7	Basquin, Cyril	MP5a-4
Abreu, Giuseppe	TP2b-1	Bassett, Danielle.....	TA4a-4
Abreu, Giuseppe.....	TP6a-2	Baumann, Manuel	TP3a-1
Abreu, Giuseppe.....	TP6a-3	Bayati, Mohsen.....	MA3b-3
Abualhaol, Ibrahim.....	TA2b-1	Bazzi, Samer	TA8b2-1
Acar, Umut.....	MP3a-4	Bean, Andrew	MP3b-4
Adams, Ian	TP4b-2	Beaulieu, Norman.....	TP8a1-1
Affes, Sofiene	MP8a3-4	Bedros, Saad.....	WA5b-2
Affes, Sofiene	TA6b-2	Beex, A. A. (Louis).....	MP8a2-1
Agirman-Tosun, Handan.....	TP8b1-6	Bellili, Faouzi	MP8a3-4
Agrawal, Keshav.....	TP8a3-7	Belmega, Elena Veronica	TP8a4-7
Ahmed, Ali	TA5b-2	Bendlin, Ralf	TP8a4-6
Ahmed, Khadeer.....	MP7a-4	Bensaid, Siouar	WA6b-1
Ahmed, Mohammed	MA6b-2	Berardinelli, Gilberto	TA8a3-2
Ahmed, Tanvir.....	TA8a3-5	Berger, Christian.....	TP5-7
Aittomaki, Tuomas	TA6a-3	Berglund, Johan	MA5b-2
Akoum, Salam	MP4b-2	Berlioli, Matteo.....	TP6b-2
Alacoque, Laurent	MA8b4-5	Bermudez, Jose.....	MP8a1-3
Al-Ani, Mustafa	TA8a4-9	Bernat, Edward.....	MA7b-2
Albera, Laurent.....	MP6a-2	Besson, Olivier	MP8a3-7
Alderson, David	TA4a-2	Bhagavatula, Madhusudan.....	WA5b-4
Al-Humaidi, Fadhel	TA6b-4	Bhargava, Vijay K.....	TA2b-4
Allison, Dennis.....	MP8a5-2	Bhat, Surendra	TP6a-4
Alouini, Mohamed-Slim.....	TA8a2-7	Bhatnagar, Manav	TA8b1-2
Alqadah, Hatim.....	TP3a-2	Bhattacharya, Tamoghna.....	TA7-2
Amin, Mohamed H.....	MA8b1-1	Bidigare, Patrick	MA6b-1
Andrews, Jeffrey G.	MP1b-2	Bin Saeed, Muhammad	MA8b5-2
Annergren, Mariette.....	TP8b1-8	Bin Saeed, Muhammad	MP8a1-4
Antón-Haro, Carles.....	MP4b-1	Bittner, Michael.....	TA8a1-7
Asendorf, Nicholas	TP8b1-4	Björk, Marcus.....	MA5b-2
Ashe, James.....	TP8a2-8	Blanco, Justin	MP7a-1
Ashok, Amit.....	TA8b3-6	Bletsas, Aggelos	MA6b-3
Avestimehr, Amir Salman	WA4b-3	Bliss, Daniel.....	TA1b-2
Aviyente, Selin.....	MA7b-2	Bliss, Daniel.....	TA8b2-8
Awan, Mehmood.....	TA7-7	Bliss, Daniel.....	TP8a1-3
Baas, Bevan	WA7a-2	Bliss, Daniel.....	WA6a-4
Baas, Bevan	WA7a-4	Blue, Rebecca	WA5b-4
Baas, Bevan	WA7b-3	Boche, Holger.....	MA8b2-8
Baghdasaryan, Areg.....	MP8a2-1	Boche, Holger.....	MA8b3-6
Bahmani, Sohail	TA3b-3	Boddeti, Vishnu Naresh.....	WA5b-3
Bajcsy, Ruzena.....	TA5b-4	Bolanos, Marcos.....	MA7b-2
Bakanoglu, Kagan	TA8b2-2	Bonny, Talal	TA8a1-15
Bansal, Ankur	TA8b1-2	Borle, Kapil	TA8b1-4
Baraniuk, Richard.....	MP3a-1	Boufounos, Petros.....	TA3b-3
Baraniuk, Richard.....	MP8a4-3	Boussemart, Vincent	TP6b-2
Baras, John	TP4a-4	Bovik, Alan.....	MP5b-3
Bar-Shalom, Yaakov.....	TP5-3	Braga-Neto, Ulisses.....	TA8a1-4
Barthel, Andrew C.....	TA8a1-9	Braga-Neto, Ulisses.....	TA8a1-16
Bartos, Anthony	MA8b3-7	Brebner, Gordon.....	MP8a5-1

NAME	SESSION	NAME	SESSION
Broglioli, Michael	TA7-4	Chen, Hao	TP8a3-7
Brown, D. R.	MA6b-1	Chen, Harry (Zhibing)	TP8a3-2
Brown, Gerald	TA4a-2	Chen, Huizhong	TA5a-1
Brown, Kevin	TA4a-4	Chen, Huizhong	TA5a-2
Browne, David	TA1b-2	Chen, Jie	MP8a1-3
Brumby, Steven	TP8b1-3	Chen, Jie	TA5a-3
Brunie, Nicolas	MA8b1-6	Chen, Jie	TP8b1-5
Buck, David	WA3b-4	Chen, Liang	WA2a-3
Bugallo, Monica	TP8a2-1	Chen, Ting	TA8a1-4
Burgess, Neil	TP7b-4	Chen, Wei	TA8b1-13
Butt, Naveed Razzaq	TA8a4-6	Chen, Xiaofei	TA8a3-8
Cabric, Danijela	TA7-8	Chen, Xu	TP8b1-1
Cadambe, Viveck	TP8b2-4	Chen, Yang	TA1a-3
Caglar, Mehmet Umut	TA8a1-6	Chen, Yi	TA5b-5
Cai, Fang	TA7-1	Chen, Yilun	TP8b1-1
Cai, Liyu	TP8a3-2	Cheng, Yen-Chun	WA7b-1
Caire, Giuseppe	TA1a-2	Cheong Took, Clive	TP3b-3
Calderbank, Robert	WA1b-3	Chi, Chong-Yung	TP8a1-6
Calderbank, Robert	WA2b-3	Chi, Chong-Yung	WA6b-3
Candrea, Enzo A.	TP6b-3	Chi, Yuejie	MP6b-3
Cao, Zhigang	TA8b1-13	Chiani, Marco	TA1a-4
Caramanis, Constantine	MP3b-3	Chiarotto, Davide	TP2b-4
Cardarilli, Gian Carlo	MP8a5-5	Chiou, Yi-Lin	WA6b-3
Cardinale, Janick	MP5a-2	Cho, Sungrae	TA8b1-14
Carin, Lawrence	MP6b-4	Cho, Sungyoon	TA8b1-12
Carin, Lawrence	TA8b3-4	Choi, Jongmoo	WA5b-1
Carlson, Jean	TA4a-4	Choi, Wan	TA8b1-14
Cattoni, Andrea F.	TA8a3-2	Chong, Edwin	TP8a3-3
Cavallaro, Joseph R.	WA7a-1	Chong, Edwin	TP8b2-8
Caves, Kevin	TA1b-3	Chorti, Arsenia	MA8b2-1
Celikkaya, E. Busra	MP3a-2	Christensen, Mads	MP8a2-2
Cevher, Volkan	TA3a-2	Christensen, Mads	TA3b-2
Chaaban, Anas	TP8b2-6	Christopoulos, Dimitrios	TP6b-1
Chaaban, Anas	WA4b-3	Chung, Moo	MP4a-1
Chae, Hyukjin	TA8b1-12	Ciblat, Philippe	MA4b-3
Chakrabarti, Chaitali	MP7b-2	Claussen, Heiko	MP8a3-5
Chakraborty, Bhavana	MA8b5-6	Clements, Mark	TP8a2-5
Chakraborty, Bhavana	TP8b1-2	Clerckx, Bruno	TA8b1-6
Chakraborty, Debejyo	TP8b1-7	Codreanu, Marian	TA8b2-5
Chan, Tsung-Han	WA6b-3	Codreanu, Marian	TP8a1-4
Chance, Zachary	WA3b-1	Coloigner, Julie	MP6a-2
Chandrasekhar, Vijay	TA5a-2	Colom Ikuno, Josep	TP1a-2
Chang, Hong	MA8b5-1	Comer, Mary	MA8b4-2
Chang, Nicholas	MP2b-2	Conti, Andrea	TA1a-4
Chang, Tsung-Hui	MA8b2-5	Corazza, Giovanni E.	TP6b-3
Chang, Tsung-Hui	TP8a1-6	Costa, Mário	MP8a3-8
Chatzinotas, Symeon	TA8a4-8	Cotter, Matthew	MP7b-2
Chatzinotas, Symeon	TP6b-1	Couillet, Romain	WA1a-4
Chen, Biao	TA8b1-4	Couillet, Romain	WA3a-2
Chen, Chen	TA5b-3	Creusere, Charles	MP7a-2
Chen, Chulong	WA1a-3	Crouse, David	TP5-3
Chen, David	TA5a-1	Cui, Shuguang	TA8b1-8
Chen, David	TA5a-2	Dabin, Jason	TP8b1-6
Chen, Hao	TP8a3-8	Dall'Anese, Emiliano	TP8a4-8

NAME	SESSION	NAME	SESSION
Dalton, Lori A.	TA8a1-1	Duman, Tolga	TA8a3-4
Dang, Jian	TA8b1-7	Dupret, Antoine	MA8b4-5
Dang, Wenbing	WA2b-3	Dupuy, Florian	TA8a2-2
Dash, Shishir	TP8a2-4	Durisi, Giuseppe	TP3a-1
Datta, Aniruddha	TA8a1-14	Edelman, Alan	WA6a-2
Datta, Aniruddha	TA8a1-3	Edla, Shwetha	MP7a-3
Daum, Fred	TP5-1	Eghbali, Homa	TA2b-1
Day, Brian	TA8b2-8	Eksin, Ceyhun	MA4b-1
de Dinechin, Benoit	MA8b1-6	El Ayach, Omar	TP1b-4
de Dinechin, Florent	MA8b1-6	El Rouayheb, Salim	TA2a-3
De Kerret, Paul	TP1b-2	El Rouayheb, Salim	TP4b-1
de Lamare, Rodrigo C.	MP8a3-3	Eldar, Yonina C.	TP5-8
De Lathauwer, Lieven	MP6a-4	El-Gamal, Hesham	TA8b3-7
Debbah, Mérouane	MP4b-2	El-Gamal, Hesham	TP2a-3
Debbah, Mérouane	TP8a4-7	Elmedyb, Thomas Bo	MP8a1-7
Debbah, Mérouane	WA1a-4	Elsayed, Khaled	TA8b2-4
Debbah, Mérouane	WA3a-1	ElTantawy, Ahmed M.	MA8b1-1
DeBole, Michael	MP7b-2	Ercegovac, Milos D.	TP7b-5
DeBrunner, Linda S.	MA8b1-5	Erdogmus, Deniz	MA7b-4
DeBrunner, Linda S.	TA8a4-3	Erkip, Elza	TA8b2-2
DeBrunner, Victor	MA8b5-7	Erkip, Elza	WA4b-2
DeBrunner, Victor	TA8a4-3	Ertin, Emre	TA8a4-5
DeGraaf, Jean	WA2b-4	Eryilmaz, Atilla	TP2a-3
DeMino, Alicia	TA1b-3	Estrela, Vania V.	MP5b-1
Deng, Qingxiong	TA2b-3	Etesami, Seyed Rasoul	TA4b-3
DeVilbiss, Stewart	MP8a3-1	Evans, Brian	WA2a-1
Devillers, Bertrand	TP6b-4	Evans, Jamie	TP1a-1
Di Nunzio, Luca	MP8a5-5	Evans, Jamie	WA2a-3
Dick, Chris	WA4a-4	Everett, Evan	WA4a-4
Dietl, Guido	TA8b2-1	Fahmy, Hossam A. H.	MA8b1-1
Dimakis, Alexandros G.	MA3b-2	Faiz, Mohammed	MP8a1-2
Dimakis, Alexandros G.	MA5b-3	Fakoorian, S. Ali A.	MP1b-4
Dimakis, Alexandros G.	TA4b-4	Fan, H. Howard	MP8a3-1
Ding, Quan	TP6a-4	Fan, H. Howard	TP3a-2
Dinh, Thang Ba	WA5b-1	Fan, Jiancun	TA8a3-7
Djuric, Petar	TP3b-2	Fan, Jing	MP5a-1
Djuric, Petar	TP8a2-4	Fannjiang, Albert	MP6b-1
Dobigeon, Nicolas	MP8a3-7	Farhang-Boroujeny, Behrouz	TA8a2-8
Doerschuk, Peter C.	TA1b-4	Fazel, Fatemeh	MP4a-3
Dogandzic, Aleksandar	WA3b-2	Fazel, Maryam	MP4a-3
Dolecek, Lara	MA2b-2	Fazzolari, Rocco	MP8a5-5
Dolecek, Lara	MP2b-3	Fink, Alex	WA5a-4
Dolecek, Lara	MP2b-1	Fiore, Paul D.	WA1a-1
Doostmohammadian, Mohammadreza	TP8b2-7	Flynn, Michael J.	MP8a5-2
Doroslovacki, Miloš	TP3b-4	Forero, Pedro	TA5b-1
Dougherty, Edward R.	TA8a1-7	Foroozan, Foroohar	TA8a4-7
Dougherty, Edward R.	TA8a1-1	Fowler, James	TA5b-3
Dougherty, Edward R.	TA8a1-3	Fowler, Mark	MA8b4-8
Dougherty, Edward R.	TA8a1-10	Fragouli, Christina	TA2a-2
Du, Huiqin	MP1a-1	Frankford, Mark	TA8a4-5
Du, Huiqin	TP8a4-5	Friedlander, Benjamin	MP6b-2
Duan, Ling-Yu	TA5a-3	Friedlander, Benjamin	TP5-6
Duarte, Melissa	WA4a-4	Friedlander, Benjamin	WA1b-1
		Friedman, Robert	WA5b-4

NAME	SESSION	NAME	SESSION
Fried-Oken, Melanie	MA7b-4	Guo, Meng	MP8a1-7
Fuchs, Jean Jacques	TA3a-4	Guo, Rui	MA8b1-5
Fuchs, Jean Jacques	TA8a4-2	Gustafsson, Oscar	TA8a3-5
Fuchs, Jean Jacques	WA2b-2	Guvenc, Ismail	TP8b2-5
Gabriel Gussen, Camila Maria	TP8a4-7	Haardt, Martin	MP6a-3
Gabrys, Ryan	MA2b-2	Haardt, Martin	MP8a3-3
Gans, Michael	TA8b1-4	Hachem, Walid	MA4b-3
Ganti, Radha Krishna	MP1b-2	Hachem, Walid	WA3a-2
Gao, Wen	TA5a-3	Haddow, Pauline	TP7a-2
Gao, Xiqi	TA8b1-11	Haimovich, Alexander M.	TP5-8
Garani Srinivasa, Shayan	MP2b-3	Haimovich, Alexander M.	TP8b1-6
Garg, Umang	TA7-4	Han, Zhu	TA8b1-15
Garrido, Mario	TA8a3-5	Han, Zhu	TA8b1-2
Gatsis, Nikolaos	TP8a4-8	Hansen, Lars Kai	MP6a-1
Geddes, Robert	WA6a-2	Hanson, Jamie	MP4a-1
Georgiev, Todor	MP5b-2	Hardin, Joe	MP7a-2
Gerbracht, Sabrina	MA8b2-3	Harris, David	MA8b1-7
Gershman, Alex	MP6a-3	Harris, Fredric	TA7-7
Gesbert, David	TP1b-2	Harris, Fredric	TA8a2-8
Geyer, Alex	TP8a1-1	Harris, Fredric	TA8a3-8
Ghaboosi, Kaveh	MP8a3-6	Hasegawa, Madoka	MA8b4-4
Gharavol, Ebrahim A.	TP8a1-8	Hasegawa, Madoka	MA8b4-3
Ghuri, Irfan	MP1b-3	Hassibi, Babak	MA3b-2
Ghrayeb, Ali	TA6b-2	Haupt, Jarvis	TA8b3-5
Giannakis, Georgios B.	MP4a-2	Heath, Jr., Robert W.	MP1b-2
Giannakis, Georgios B.	TA5b-1	Heath, Jr., Robert W.	MP4b-2
Giannakis, Georgios B.	TP2a-1	Heath, Jr., Robert W.	TA8b1-5
Giannakis, Georgios B.	TP8a4-8	Heath, Jr., Robert W.	TP1b-4
Gibson, Jerry	MP8a2-3	Heidarpour, Reza	TA2b-2
Gilani, Syed Z.	TP7b-3	Hermundstad, Ann	TA4a-4
Girod, Bernd	MA2b-3	Hero, Alfred O.	TA8a1-2
Girod, Bernd	TA5a-1	Hero, Alfred O.	TA8b3-1
Girod, Bernd	TA5a-2	Hero, Alfred O.	TP8b1-1
Glick, Rebecca	MA8b1-7	Hild II, Kenneth E.	MA7b-4
Godrich, Hana	TA6a-3	Himed, Braham	TA6a-4
Godrich, Hana	TA6a-1	Hjørungnes, Are	TA8b1-2
Goeckel, Dennis L.	MA8b3-2	Hlawatsch, Franz	TP3b-2
Goeckel, Dennis L.	MA8b3-3	Hlinka, Ondrej	TP3b-2
Goeckel, Dennis L.	TP8b2-2	Ho, Tracey	TA2a-4
Goksu, Fikri	MA7b-1	Hoff, Lawrence E.	WA3b-4
Goma, Sergio	MP5b-2	Honeine, Paul	MP8a1-3
Gomes, Joao Pedro	MA4b-4	Honeine, Paul	TP8b1-5
Goutsias, John	TA8a1-12	Hong, Y.-W. Peter	MA8b2-5
Greenwood, Garrison	TP7a-4	Ho-Phuoc, Tien	MA8b4-5
Gribonval, Rémi	TA3b-2	Hopkins, Joseph	MA8b3-7
Gründinger, Andreas	WA2b-1	Hoshi, Masaru	MA8b4-3
Grzeszczuk, Radek	TA5a-1	Hou, Jianjun	TA8b1-16
Grzeszczuk, Radek	TA5a-2	Hovareshti, Pedram	TP4a-4
Gubner, John	TP8a3-3	Howard, Stephen	TP8b2-8
Guérin-Dugué, Anne	MA8b4-5	Howard, Stephen	WA2b-3
Gunther, Jacob (Jake)	MP2b-4	Hoydis, Jakob	WA1a-4
Gunther, Jacob (Jake)	MP8a4-2	Hsiao, Shen-Fu	WA7b-1
Gunther, Jacob (Jake)	TA8a2-1	Hu, Siying	WA5b-4
Gunther, Jacob (Jake)	WA1b-2	Hu, Y. Charlie	TA6b-1

NAME	SESSION	NAME	SESSION
Hua, Chen	TP4a-4	Jenkins, Kenneth	MA8b1-3
Hua, Kai-Lung.....	MA8b4-2	Jenkinson, Garrett	TA8a1-12
Huang, Chao-Wei	MA8b2-5	Jensen, Jesper	MP8a1-7
Huang, Cheng	TP8b2-4	Jensen, Søren Holdt.....	MP8a1-7
Huang, Hsu-Chang.....	MP8a1-6	Jeremic, Aleksandar	TP8a2-3
Huang, Jane Wei	TP2a-4	Ji, Rongrong	TA5a-3
Huang, Jing	MA8b2-2	Ji, Yusheng	WA2a-3
Huang, Junzhou	TP5-5	Jiang, Hua	MP8a5-7
Huang, Kaibin	MA1b-2	Jiang, Yuebing	MA8b4-1
Huang, Kaibin	TA8b1-10	Jiao, Bingli	TA8b1-15
Huang, Kaibin	TA8b1-12	Jin, Shi.....	TA8b1-11
Huang, Kaibin	TA8b1-14	Jing, Yindi	TA6b-3
Huang, Tiejun	TA5a-3	Joham, Michael	WA2b-1
Huang, Yichao	TA8a3-3	Johansson, Karl Henrik	TP4a-3
Huang, Yih-Fang.....	TP8a4-6	John, Gallagher	TP7a-3
Huang, Yufei	TA8a1-11	Johnson, Joel	TA8a4-5
Huang, Yufei	TP8a2-2	Johnston, Scott E.	WA1a-1
Huemer, Mario.....	MP8a1-1	Johnston, Stephen.....	TP8b1-2
Hult, Tommy.....	TP6b-5	Jorswieck, Eduard	MA8b2-3
Hunter, Christopher	WA4a-2	Jose, Jubin	TP1a-3
Hur, Seong-Ho (Paul)	MP1a-2	Joshi, Satya	TA8b2-5
Hur, Youngmi	WA5a-3	Joshi, Satya	TP8a1-4
Hush, Don.....	MA8b5-3	Jung, Bang-Chul.....	MP1a-2
Hwang, Suk-seung	MA8b5-1	Jung, Byunghoo.....	TA6b-1
Ibrahimi, Morteza	MA3b-4	Kachenoura, Amar.....	MP6a-2
lenne, Paolo	MP8a5-3	Kandula, Viswanadh.....	TA8a4-3
Ihler, Alexander.....	MP3a-4	Kanga, Myuran	WA4a-2
Inamori, Mamiko	TP2b-1	Kanoria, Yashodhan	MA3b-4
Ince, Nuri F.	MA7b-1	Kanterakis, Emmanuel	TP8b1-6
Indic, Premananda	TA1b-2	Kar, Soumya.....	MA4b-2
Irudayaraj, Arokia.....	TA7-4	Kato, Shigeo	MA8b4-3
Ishibashi, Koji	WA4a-1	Kato, Shigeo	MA8b4-4
Islam, Toufiqul.....	TA2b-4	Katsaggelos, Aggelos K.....	MP5b-1
Iutzeler, Franck.....	MA4b-3	Kavusi, Sam	MP8a4-1
Ivanov, Ivan	TA8a1-7	Kay, Steven	TP6a-4
Iwen, Mark.....	TA8b3-2	Keeter, Matthew.....	MA8b1-7
Jääskeläinen, Pekka.....	MP7b-4	Keller, Lorenzo.....	TA2a-2
Jaberipur, Ghassem	MA8b1-4	Keshavarz-haddad, Alireza.....	WA4b-1
Jadbabaie, Ali	TA4a-3	Kevinzky, Tamas	TP4a-3
Jaech, Aaron.....	WA5b-4	Khajehnejad, Amin.....	MA3b-2
Jafar, Syed.....	TA2a-1	Khan, Usman A.....	MA4b-2
Jafar, Syed.....	TP1b-1	Khan, Usman A.....	TP8b2-7
Jahanchahi, Cyrus.....	TP3b-3	Khandani, Amir	TP2b-3
Jain, Nitin.....	TA7-4	Khedr, Alhassan F.....	MA8b1-1
Jajamovich, Guido Hugo	TA8a1-8	Khisti, Ashish	MA2b-3
Jakobsson, Andreas	TA8a4-6	Khisti, Ashish	TA8a2-7
Jakubowicz, Jérémie	MA4b-3	Khojastepour, Mohammad (Amir)	WA4b-1
Jamali, Mohsin.....	WA7a-3	Kibangou, Alain.....	TP8a3-6
Jang, Hwanchol	TA8a2-3	Kim, Dongku	TA8b1-12
Jang, Hwanchol	WA3a-4	Kim, Nam Sung	TP7b-3
Janneck, Jorn W.	MP7b-3	Kim, Seong-Wan.....	MP8a4-4
Jaramillo, Juan Jose.....	TP8a4-3	Kim, Seung-Jun.....	TP2a-1
Javanmard, Adel.....	MA3b-4	Kim, Sungsoo	WA4a-1
Javidi, Tara	MA2b-4	Kim, Taejoon.....	TA8b1-6

NAME	SESSION	NAME	SESSION
Kirachaiwanich, Davis	TA3a-3	Li, Hui	TA8b3-4
Klein, Andrew	TA2b-3	Li, Jian	TA6a-2
Knopp, Raymond	TA8b2-3	Li, Jian	WA6a-1
Koch, Peter	TA7-7	Li, Jianguyuan	MA8b2-4
Koivunen, Visa	MP8a3-8	Li, Jin	TP8b2-4
Koivunen, Visa	TA6a-3	Li, Lin	MP3b-2
Koksal, Can Emre	MP2a-4	Li, Liying	TA8a3-7
Koksal, Emre	MP4b-3	Li, Peng	TP8a1-7
Kommi, Mahesh	TA7-2	Li, Qiang	MA8b2-6
Kountouris, Marios	MP4b-2	Li, Shang	TA1a-3
Kovvali, Narayan	MP7a-3	Li, Xiao	TA8b1-11
Kovvali, Narayan	TP8b1-7	Li, Yang	TP8a3-1
Kovvali, Narayan	TP8b1-2	Li, Ying-Yi	MP8a2-3
Krishnamurthy, Ram	TP7b-2	Li, Zhi	MA2b-3
Krishnamurthy, Siddhartha	WA6a-4	Liang, Qilian	TA3a-3
Krishnamurthy, Vikram	TP2a-4	Liang, Qilian	TP5-2
Krishnamurthy, Vikram	TP8a2-7	Liang, Ying-Chang	MP1a-1
Kristem, Vinod	MA1b-4	Liang, Ying-Chang	TA8b1-3
Kroger, Jim	MP7a-2	Lin, Chao	TP8a2-1
Krongold, Brian	WA2a-3	Lin, Yenting	MA5b-3
Krzymien, Witold	TA6b-3	Lindhé, Magnus	TP4a-3
Kubichek, Robert	TA1b-3	Litt, Brian	MP7a-1
Kullberg, Joel	MA5b-2	Liu, Bin	WA7a-2
Kultala, Heikki	MP7b-4	Liu, Chih-Hao	TP8a1-5
Kumar, B.V.K. Vijaya	WA5b-3	Liu, Guangyi	TA8b1-8
Kumatani, Kenichi	MA8b5-4	Liu, Guifeng	MA8b5-7
Kyriakides, Alexandros	MP8a2-4	Liu, Hao	MP7b-1
Larsson, Erik G.	TP8a1-8	Liu, Juan	TA8b1-13
Laska, Jason N.	MP3a-1	Liu, Shihuan	TP8a4-3
Laska, Jason N.	MP8a4-3	Liu, Xi	WA4b-2
Latva-aho, Matti	TA8b2-6	Liu, Yong	TP8a3-2
Latva-aho, Matti	TA8b2-5	Liu, Yupeng	MA6b-4
Latva-aho, Matti	TP8a1-4	Lombardo, Francesco	TP6b-3
Lau, Vincent K.N.	MP1a-3	Long, Darrell	TP4b-2
Layek, Ritwik	TA8a1-14	Loubaton, Philippe	TA8a2-2
Le, Stephen	WA7a-4	Love, David	TA8b1-6
Learned, Rachel	TP1b-5	Love, David	WA3b-1
Lederer, Christian	MP8a1-1	Lozano, Angel	TP1b-4
Lee, Andrew	WA7b-1	Lu, Wu-Sheng	TA3b-4
Lee, Cheng-Han	WA7b-1	Lu, Yung-Hsiang	TA6b-1
Lee, Heung-No	TA8a2-3	Lucani, Daniel	TP8b2-1
Lee, Heung-No	WA3a-4	Luk, Wayne	MP8a5-6
Lee, Junghsi	MP8a1-6	Lumsdaine, Andrew	MP5b-2
Lee, Juo-Yu (Joseph)	TP8a3-5	Luo, Zhi-Quan	MP1b-1
Lee, Ka-Kit	WA6b-3	Luo, Zhi-Quan	TA8b1-9
Lee, Sang Hyun	TP2b-5	Lutz, David	TP7b-4
Lehman, Jill	MA8b5-4	Lyubeznik, Gennady	MP1b-1
Leow, Chee Yen	TP8b2-2	Ma, Wing-Kin	MA8b2-6
Lepistö, Mikael	MP7b-4	Ma, Wing-Kin	TP8a1-6
Leung, Kin K.	TP8b2-2	Ma, Wing-Kin	WA6b-3
Leus, Geert	TP6a-1	Ma, Xiaoli	TP6a-1
Li, Geoffrey Ye	TA8a3-7	Maashri, Ahmed Al.	MP7b-2
Li, Hongbin	TA6a-4	Macagnano, Davide	TP6a-2
Li, Huaying	TP8a2-3	Macrae, Andrew	MA8b1-7

NAME	SESSION	NAME	SESSION
Madhow, Upamanyu.....	MA6b-1	Merched, Ricardo.....	TP3b-5
Madhow, Upamanyu.....	TA8a3-6	Merz, Ruben.....	TA8b2-3
Madhow, Upamanyu.....	TP8a3-4	Mettu, Ramgopal.....	MP3a-4
Madsen, Kristoffer Hougaard.....	MP6a-1	Miller, Ethan.....	TP4b-2
Mahabalagiri, Anvith.....	MP7a-4	Miller, Scott.....	WA7b-2
Mailhes, Corinne.....	TP8a2-1	Min, Jae Hong.....	MP8a4-4
Maina, Ciira.....	MP3a-3	Mittal, Anish.....	MP5b-3
Makur, Anamitra.....	WA5a-1	Moallemi, Nasim.....	TA8a4-7
Malin, Anna.....	TP8b1-2	Mogensen, Preben.....	TA8a3-2
Mallada, Enrique.....	MP4a-4	Moh, Melody.....	TP8a3-1
Mallik, Ranjan K.....	TA2b-4	Mohammed, Abbas.....	TP6b-5
Malloy, Matthew.....	TA8b3-3	Mohsenin, Tinoosh.....	WA7b-3
Mandic, Danilo.....	TP3b-3	Molisch, Andreas.....	MA1b-4
Manduca, Armando.....	MA5b-1	Mondragon-Torres, Antonio.....	TA7-2
Mangharam, Rahul.....	TA4a-1	Monga, Vishal.....	TA5b-5
Manolakis, Konstantinos.....	WA1a-2	Montanari, Andrea.....	MA3b-3
Mao, Zhoujia.....	MP2a-4	Montanari, Andrea.....	MA3b-4
Mardani, Morteza.....	MP4a-2	Moody, Daniela.....	TP8b1-3
Margetts, Adam.....	TA8b2-8	Moon, Todd.....	MP2b-4
Margetts, Adam.....	TP8a1-3	Moon, Todd.....	MP8a4-2
Marshall, Alan.....	MP8a5-8	Moon, Todd.....	TA8a2-1
Marzetta, Thomas.....	MA1b-3	Moon, Todd.....	WA1b-2
Masmoudi, Ahmed.....	MP8a3-4	Moorthy, Anush.....	MP5b-3
Masnadi-Shirazi, Alireza.....	WA6b-2	Moran, William.....	TP8b2-8
Masouros, Christos.....	TA8b1-3	Moran, William.....	WA2b-3
Matamoros, Javier.....	MP4b-1	Morrison, Kyle.....	MA8b3-3
Mateos, Gonzalo.....	MP4a-2	Mørup, Morten.....	MA7b-3
Mathecken, Pramod.....	WA2a-2	Mørup, Morten.....	MP6a-1
Mathew, Sanu.....	TP7b-2	Moshksar, Kamyar.....	TP2b-3
Matthaiou, Michail.....	TP6b-1	Mostofi, Yasamin.....	TP4a-1
Matthews, Brett.....	TP8a2-5	Moura, Jose'.....	TP5-7
Matthiesen, Bho.....	WA1a-2	Moussa, May.....	TA8b3-7
Matz, Gerald.....	MP4b-1	Movassagh, Ramis.....	WA6a-2
Maymon, Shay.....	MP8a4-5	Mudumbai, Raghu.....	MA6b-1
Mazzotti, Matteo.....	TA1a-4	Muhaidat, Sami.....	TA2b-1
McDonough, John.....	MA8b5-4	Muharar, Rusdha.....	TP1a-1
McEachen, John.....	TP8a4-4	Mukherjee, Amitav.....	MA8b3-1
McGuire, Michael.....	WA7b-2	Mukherjee, Sayandev.....	MP1a-4
McIlhenny, Robert.....	TP7b-5	Mukherjee, Sayandev.....	TP8b2-5
McKay, Matthew.....	MA8b2-7	Murch, Ross.....	TP8a1-7
McKay, Matthew.....	TA1a-3	Mutlu, Ali Yener.....	MA7b-2
McKay, Matthew.....	TP8a1-7	Myers, Kary.....	MA8b5-3
McMichael, Joseph G.....	MP8a4-5	Myers, Kary.....	TP8b1-3
McPherson, D.B.....	TA4a-2	Mylyly, Markus.....	TA7-6
Meas-Yedid, Vannary.....	MP5a-4	Nadakuditi, Raj Rao.....	TA1a-1
Medard, Muriel.....	MA2b-1	Nadakuditi, Raj Rao.....	TP8b1-4
Medard, Muriel.....	TP8b2-1	Nafie, Mohammed.....	TA8b2-4
Medina Perlaza, Samir.....	WA3a-1	Nafie, Mohammed.....	TA8b3-7
Medioni, Gérard.....	WA5b-1	Naguib, Ahmed.....	TA8b2-4
Mehrotra, Sanjeev.....	TP8b2-4	Naguib, Ayman.....	TA8b3-7
Mehta, Neelesh B.....	MA1b-4	Narayanan, Ram.....	TP6a-4
Mencer, Oskar.....	MP8a5-2	Narayanan, Vijaykrishnan.....	MP7b-2
Meng, Jia.....	TA8a1-11	Nascimento, Vitor.....	TP3b-1
Meng, Jia.....	TP8a2-2	Nassar, Marcel.....	WA2a-1

NAME	SESSION	NAME	SESSION
Natesan Ramamurthy, Karthikeyan.....	TP3a-3	Pappas, George J.....	TA4a-1
Nedic, Angelia.....	TA4b-3	Pappas, George J.....	TP4a-2
Neely, Christopher.....	MP8a5-1	Parag, Parimal.....	TP4b-1
Neely, Michael.....	TP8a4-2	Parandeh Afshar, Hadi.....	MP8a5-3
Negro, Francesco.....	MP1b-3	Parhami, Behrooz.....	MA8b1-4
Nehorai, Arye.....	TP8a2-6	Parhi, Keshab K. Parh.....	MP8a5-7
Neifeld, Mark.....	TA8b3-6	Park, Sangjun.....	WA3a-4
Nejati, Saeed.....	MA8b1-4	Parker, Jason.....	TA3a-2
Nelson, Douglas.....	MA8b3-7	Parker, Lyndsi.....	TP7b-1
Nelson, Douglas.....	MP8a2-6	Pattichis, Marios.....	MA8b4-1
Nelson, Jill.....	MA8b5-5	Paul, Grégory.....	MP5a-2
Nelson, Jill.....	TA8a2-4	Paul, Steffen.....	TA7-5
Nemzek, Robert.....	MA8b5-3	Pawar, Sameer.....	TA2a-3
Newstadt, Gregory.....	TA8b3-1	Pawar, Sameer.....	TP4b-1
Noorshams, Nima.....	MA3b-1	Pawley, Norma.....	MA8b5-3
Nooshabadi, Saeid.....	TA8a2-3	Pawley, Norma.....	TP8b1-3
Northrop, Judith.....	WA1b-4	Paydarfar, David.....	TA1b-2
Nosrat-Makouei, Behrang.....	MP1b-2	Pearce, Allison.....	MP7a-1
Nossek, Josef A.....	TP8a4-6	Pellizzer, Guiseppo.....	TP8a2-8
Nowak, Robert.....	TA8b3-3	Pennanen, Harri.....	TA8b2-6
O Griofa, Marc.....	WA5b-4	Pérez-Neira, Ana.....	TP6b-4
O'Connor, Sean J.....	TA1b-4	Peroulis, Dimitrios.....	TA6b-1
Odeh, Maha.....	TP1b-2	Pesavento, Marius.....	MP6a-3
Ogunfunmi, Tokunbo.....	MP8a2-5	Petropulu, Athina.....	MA6b-4
Okeke, Godfrey.....	TA6b-3	Petropulu, Athina.....	MA8b2-4
Oken, Barry.....	MA7b-4	Petropulu, Athina.....	TA6a-1
Olbrich, Michael.....	WA1a-2	Petropulu, Athina.....	TP5-5
Olivo-Marin, Jean-Christophe.....	MP5a-4	Pezeshki, Ali.....	MP6b-3
Ong, Madeleine.....	MA8b1-7	Pezeshki, Ali.....	TP8b2-8
Oppenheim, Alan V.....	MP8a4-5	Pezeshki, Ali.....	WA2b-3
Oppenheimer, Michael.....	TP7a-3	Pfletschinger, Stephan.....	WA4a-3
Orhan, Umut.....	MA7b-4	Phillips, Brian.....	TP8a4-4
Ortega, Antonio.....	MA5b-3	Pitris, Costas.....	MP8a2-4
O'Sullivan, John.....	WA7b-4	Plank, James.....	TP4b-3
Ottersten, Björn.....	TA8a4-8	Plawecki, Martin H.....	TA1b-4
Ottersten, Björn.....	TP6b-1	Polak, Adam.....	MA8b3-2
Ozel, Omur.....	MA1b-1	Pollak, Ilya.....	MA8b4-2
Ozel, Omur.....	MP2a-1	Pollak, Seth.....	MP4a-1
Ozil, Ipek.....	TA1b-4	Ponnuru, Sandeep.....	TA8a3-6
Pahlavan, Kaveh.....	MP8a3-6	Poor, H. Vincent.....	MA6b-4
Pajic, Miroslav.....	TA4a-1	Poor, H. Vincent.....	MA8b2-1
Pal, Piya.....	MA8b5-8	Poor, H. Vincent.....	TA6a-1
Pal, Piya.....	MP8a3-2	Poor, H. Vincent.....	TA6a-3
Pal, Ranadip.....	TA8a1-6	Pope, Graeme.....	TP3a-1
Paolini, Enrico.....	TA1a-4	Pourhomayoun, Mohammad.....	MA8b4-8
Papadias, C. B.....	TP8a4-5	Prasad, Narayan.....	TP1a-3
Papadopoulos, Haralabos.....	MP1a-4	Preciado, Victor.....	TA4a-3
Papandreou-Suppappola, Antonia.....	MP7a-3	Principe, Jose.....	TA1b-1
Papandreou-Suppappola, Antonia.....	TP6a-4	Proakis, John.....	TA8a3-4
Papandreou-Suppappola, Antonia.....	TP8b1-2	Pugh, Matthew.....	TA8b2-7
Papandreou-Suppappola, Antonia.....	WA1b-4	Qian, Xiaoning.....	TA8a1-10
		Qiu, Kun.....	WA3b-2
		Qureshi, Tariq.....	WA1b-3
		Radhakrishnan, Chandrashekar.....	MA8b1-3

NAME	SESSION	NAME	SESSION
Radosevic, Andreja.....	TA8a3-4	Rossi, Marco.....	TP5-8
Rahmatollahi, Golaleh	TP6a-3	Rossi, Michele	TP2b-4
Raj, Bhiksha	MA8b5-4	Roufarshbaf, Hossein	MA8b5-5
Raj, Bhiksha	TA3b-3	Rowe, William.....	WA6a-1
Raj, Raghu.....	WA3b-1	Ruan, Liangzhong	MP1a-3
Rajawat, Ketan	TP8a4-8	Rueetschi, Andrea	TA4b-1
Rajesh, Ramachandran.....	MP2a-3	Rupp, Markus	TA8a2-6
Rambo-Rodenberry, Michelle	TA8a4-3	Rupp, Markus	TP1a-2
Ramchandara, Preethi.....	MA8b4-7	Rupp, Markus	TP3b-2
Ramchandran, Kannan.....	TA2a-3	Rupp, Markus	WA2a-4
Ramchandran, Kannan.....	TP4b-1	Sabharwal, Ashutosh.....	WA4a-2
Ramkumar, Krishnan	WA5b-3	Sabharwal, Ashutosh.....	WA4a-4
Ramprashad, Sean.....	MP1a-4	Sadek, Ahmed	TA8b3-8
Rangarajan, Sampath.....	TP1a-3	Salama, Khaled Nabil.....	MP8a4-1
Rangaswamy, Muralidhar	TP6a-4	Salama, Khaled Nabil.....	TA8a1-15
Rao, Bhaskar D.	MP1a-2	Salim, Umer.....	MP1b-3
Rao, Bhaskar D.	TA8a3-3	Salisbury, Elisabeth	TA1b-2
Rao, Bhaskar D.	TA8b2-7	Sanada, Yukitoshi.....	TP2b-1
Rao, Bhaskar D.	WA6b-2	Sánchez Castillo, Manuel.....	TA8a1-11
Ratnarajah, Tharmalingam	MA8b3-8	Sarder, Pinaki	TP8a2-6
Ratnarajah, Tharmalingam	MP1a-1	Sarkar, Md. Zahurul I.....	MA8b3-8
Ratnarajah, Tharmalingam	TA8b1-3	Sarmadi, Nima.....	MP6a-3
Ratnarajah, Tharmalingam	TP8a4-5	Sartipi, Mina.....	MA8b4-7
Razaviyayn, Meisam	MP1b-1	Sauvonnet, Nathalie	MP5a-4
Razaviyayn, Meisam	TA8b1-9	Savvides, Marios	WA5b-4
Re, Marco	MP8a5-5	Sayed, Ali H.	MP3b-1
Rebeiz, Eric	TA7-8	Sayed, Ali H.	TA4b-2
Reise, Günter	MP4b-1	Sayed, Ali H.	TP3b-1
Ren, Jie	TA8b1-16	Sayed, Faten	MP3b-1
Rezaee, Arman.....	MA2b-1	Sayilir, Serkan.....	TA6b-1
Rezki, Zouheir	TA8a2-7	Sbalzarini, Ivo F.....	MP5a-2
Ribeiro, Alejandro	MA4b-1	Scaglione, Anna.....	MP3b-2
Ribeiro, Alejandro	TP4a-2	Scaglione, Anna.....	TA4b-1
Rice, Garrey	WA7b-4	Scharf, Louis.....	MP6b-3
Richard, Cédric.....	MP8a1-3	Scharf, Louis.....	TP8a3-3
Richard, Cédric.....	TP8b1-5	Scharrenbroich, Max	WA3a-3
Richmond, Christ.....	WA6a-2	Schauer, Justin.....	MA8b1-7
Richter, Andreas	MP8a3-8	Schlereth, Fred	MP7a-4
Riedel, Marc D.	MP8a5-7	Schniter, Philip.....	TA3a-1
Riedl, Thomas	TA8a2-5	Schniter, Philip.....	TA3a-2
Riihonen, Taneli.....	TP1a-4	Schniter, Philip.....	TA8b2-8
Riihonen, Taneli.....	WA2a-2	Schniter, Philip.....	TP3a-4
Ritcey, James	MA8b3-5	Schober, Robert.....	TA2b-4
Roark, Brian.....	MA7b-4	Schulte, Michael J.	MA8b1-8
Rodriguez, Paul.....	MP5b-4	Schulte, Michael J.	TP7b-3
Roemer, Florian	MP6a-3	Sellathurai, Mathini	TA8b1-3
Rogers, Uri	TP8a3-8	Sen Gupta, Ananya	TA8a2-4
Rojas, Cristian R.....	TP8b1-8	Seng, Shay	MP8a5-1
Romberg, Justin	TA5b-2	Senhadji, Lotfi.....	MP6a-2
Romero, Sabrina	TP7b-4	Seto, Koji	MP8a2-5
Rosca, Justinian	MP8a3-5	Severi, Stefano	TP6a-3
Rosenthal, Daniel	TP4b-2	Sezgin, Aydin.....	MA8b3-6
Ross, Dian.....	WA7b-2	Sezgin, Aydin.....	TP8b2-6
Rossetto, Francesco.....	TP6b-2	Sezgin, Aydin.....	WA4b-3

NAME	SESSION	NAME	SESSION
Shafer, Andrew	TP7b-1	Stoica, Petre	MA5b-2
ShahbazPanahi, Shahram	TA6b-4	Stojanovic, Milica	MP4a-3
ShahbazPanahi, Shahram	TA8a4-7	Stojanovic, Milica	TA8a3-4
Shamai, Shlomo	TA1a-2	Stojanovic, Milica	TP8b2-1
Shamaiah, Manohar	TP2b-5	Strohmer, Thomas	MP6b-2
Shannon, Lesley	MP8a5-4	Studer, Christoph	TP3a-1
Sharma, Amy	WA3b-3	Sturm, Bob	MP8a2-2
Sharma, Vinod	MP2a-3	Sturm, Bob	TA3b-2
Shellhammer, Stephen	TA8b3-8	Su, Wei	TP8b1-6
Shelton, Christian	MP3a-2	Sullivan, Michael	MA8b1-2
Shen, Cong	TA8b3-8	Sumer, Ozgur	MP3a-4
Shi, Wei	MA8b3-5	Sun, Chang	MA8b4-6
Shia, Victor	TA5b-4	Sun, Liang	TP8a1-7
Shim, Byonghyo	TA3b-1	Sun, Shaohui	TA8b1-15
Shin, Won-Yong	TP8b2-1	Sun, Yang	WA7a-1
Shin, Won-Yong	WA4a-1	Sun, Yifan	MP2b-1
Shirani-Mehr, Houshmand	WA7b-3	Sundaram, Shreyas	TA4a-1
Shroff, Ness B.	MP2a-4	Svensson, Lennart	TP5-3
Shynk, John J.	MA8b5-1	Swami, Ananthram	MP3b-2
Shynk, John J.	MP8a1-5	Swaminathan, Gurumurthy	WA5b-2
Siddenki, Srikant	MP7a-2	Swar, Pranay Pratap	MP8a3-6
Sigworth, Fred J.	TA8a1-9	Swartzlander, Earl	MA8b1-2
Sima, Mihai	WA7b-2	Swartzlander, Earl	MP8a4-4
Simeone, Osvaldo	TA8b2-2	Swartzlander, Earl	TP7b-1
Simeone, Osvaldo	TP2b-4	Swindlehurst, A. Lee	MA8b2-2
Simeone, Osvaldo	TP8b1-6	Swindlehurst, A. Lee	MA8b3-1
Simko, Michal	TA8a2-6	Swindlehurst, A. Lee	MP1b-4
Singer, Andrew	MP3b-4	Tadipatri, Vijay Aditya	TP8a2-8
Singer, Andrew	TA8a2-5	Tadrous, John	TP2a-3
Singh Alvarado, Alexander	TA1b-1	Tagare, Hemant	TA8a1-9
Sinopoli, Bruno	MA4b-4	Takacs, Gabriel	TA5a-2
Sklivanitis, George	MA6b-3	Takahashi, Keita	MA8b4-4
Slavinsky, J.P.	MP8a4-3	Takala, Jarmo	MP7b-4
Slivinski, Laura	TP8a1-3	Takeda, Hiroyuki	MA5b-4
Slock, Dirk	MP1b-3	Tan, Kenneth	TP8a2-3
Slock, Dirk	WA6b-1	Tanaka, Yuichi	MA8b4-3
Sluciak, Ondrej	TP3b-2	Tanaka, Yuichi	MA8b4-4
So, Anthony Man-Cho	MA8b2-6	Tang, Ao Kevin	MP4a-4
Soderstrand, Michael	MP8a1-8	Tapparelo, Cristiano	TP2b-4
Song, Bin	MP6a-3	Taranetz, Martin	TP1a-2
Song, Lingyang	TA8b1-15	Tarczynski, Andrzej	TA8a4-9
Soni, Akshay	TA8b3-5	Tarokh, Vahid	TP8b2-1
Sorensen, Mikael	MP6a-4	Tarokh, Vahid	WA6a-4
Sørensen, Troels B.	TA8a3-2	Tewfik, Ahmed H.	TA8b3-2
Spanias, Andreas	MP8a2-4	Tewfik, Ahmed H.	TP8a2-8
Spanias, Andreas	TP3a-3	Thiagarajan, Jayaraman J.	WA5a-2
Spanias, Andreas	WA5a-2	Thibault, Ilaria	TP6b-3
Spanias, Andreas	WA5a-4	Thiele, Lars	WA1a-2
Sridharan, A.	MP4b-3	Thomson, David J.	WA6a-3
Srinivas, Umamahesh	TA5b-5	Tian, Ye	TP8b2-3
Stafford, Phillip	TP8b1-2	Tibau-Puig, Arnau	TA8a1-2
Stanczak, Slawomir	WA1a-2	Tienda Luna, Isabel Maria	TA8a1-11
Steinwandt, Jens	MP8a3-3	Tölli, Antti	TA8b2-6
Stewart, Kyle	TA8a4-5	Tonelli, Oscar	TA8a3-2

NAME	SESSION	NAME	SESSION
Tourneret, Jean-Yves.....	MP8a3-7	Wainwright, Martin.....	MA3b-1
Tourneret, Jean-Yves.....	TP8a2-1	Walker, James.....	TP7a-1
Tramel, Eric.....	TA5b-3	Walsh, John.....	MP3a-3
Tran, Trac D.....	TA5b-5	Walters III, E. George.....	MA8b1-8
Trefzer, Martin.....	TP7a-1	Wang, Guohui.....	WA7a-1
Truong, Kien T.....	TA8b1-5	Wang, Jiadong.....	MP2b-3
Trzasko, Joshua.....	MA5b-1	Wang, Jian.....	TA3b-1
Tsai, Sam.....	TA5a-1	Wang, Meng.....	MP4a-4
Tsai, Sam.....	TA5a-2	Wang, Pu.....	TA6a-4
Tu, Sheng-Yuan.....	TA4b-2	Wang, Qi.....	WA2a-4
Tugnait, Jitendra.....	MA8b3-4	Wang, Qixing.....	TA8b1-8
Tugnait, Jitendra.....	TP2b-2	Wang, Xiaodong.....	TA8a1-8
Tulino, Antonia.....	TA1a-2	Wang, Xiaodong.....	TP2a-2
Tummala, Murali.....	TP8a4-4	Wang, Xiaoyu.....	TA5a-4
Tuninetti, Daniela.....	TP1b-3	Wang, Xin.....	TP5-4
Tuninetti, Daniela.....	WA4b-4	Wang, Yiyin.....	TP6a-1
Tutuncuoglu, Kaya.....	MP2a-2	Weeraddana, Pradeep Chathuranga.....	TA8b2-5
Tuuk, Peter.....	WA3b-3	Weeraddana, Pradeep Chathuranga.....	TP8a1-4
Tyrrell, Andy.....	TP7a-1	Weiss, Stephan.....	WA7b-4
U.S., Yadhunandan.....	WA5b-2	Weng, Ching-Chih.....	TA8a4-4
Ulukus, Sennur.....	MA1b-1	Weng, Zhiyuan.....	TP5-4
Ulukus, Sennur.....	MP2a-1	Werner, Stefan.....	TP1a-4
Urgaonkar, Rahul.....	TP8a4-2	Werner, Stefan.....	WA2a-2
Urriza, Paulo.....	TA7-8	West, Roger.....	MP8a4-2
Utschick, Wolfgang.....	WA2b-1	West, Roger.....	WA1b-2
Uysal, Murat.....	TA2b-2	Wichman, Risto.....	TP1a-4
Vaidyanathan, P. P.....	MA8b5-8	Wichman, Risto.....	WA2a-2
Vaidyanathan, P. P.....	MP8a3-2	Wiegand, Till.....	TA7-5
Vaidyanathan, P. P.....	TA8a4-4	Wiese, Thomas.....	MP8a3-5
Vaidyanathan, P. P.....	TP8a1-5	Willett, Peter.....	TP5-3
van der Veen, Alle-Jan.....	WA6b-4	Williams, Brian T.....	WA3b-4
Vanelli-Coralli, Alessandro.....	TP6b-3	Williamson, James.....	TA1b-2
Varshney, Pramod.....	TP8a3-7	Winter, Edward M.....	WA3b-4
Vedantham, Ramakrishna.....	TA5a-1	Wirth, Thomas.....	MP4b-4
Vedantham, Ramakrishna.....	TA5a-2	Wong, Kai-Kit.....	TA8b1-16
Vempaty, Aditya.....	TP8a3-7	Wong, Stephen.....	MP5a-1
Venkateswaran, Sriram.....	TP8a3-4	Woods, Roger.....	MP8a5-8
Venosa, Elettra.....	TA8a3-8	Wu, Gang.....	TA8a3-7
Venturino, Luca.....	TP1a-3	Wu, Jinhong.....	TP8a3-2
Verdant, Arnaud.....	MA8b4-5	Wu, Michael.....	WA7a-1
Verdú, Sergio.....	TA1a-2	Wu, Ting.....	TA8a1-5
Vijayakumar, Asha.....	WA5a-1	Wulsin, Drausin.....	MP7a-1
Vikalo, Haris.....	TA8a1-5	Wylie, Jay.....	TP4b-4
Vikalo, Haris.....	TP2b-5	Wyrembelski, Rafael F.....	MA8b2-8
Vila, Jeremy.....	TA3a-1	Wyrembelski, Rafael F.....	MA8b3-6
Villa, Tania.....	TA8b2-3	Xia, Chen.....	MP7b-1
Vishwanath, Sriram.....	TP2b-5	Xia, Xiaofeng.....	MP5a-1
Vorobyov, Sergiy.....	MA6b-2	Xiao, Zhibin.....	WA7a-4
Vorobyov, Sergiy.....	TP8a1-1	Xiong, Chenrong.....	TA7-3
Vouras, Peter.....	WA2b-4	Xu, Hongbing.....	TA8a3-7
Vu, Duc.....	TA6a-2	Xu, Luzhou.....	TA6a-2
Wadood Majid, Mohammad.....	WA7a-3	Xu, Weiyu.....	MP4a-4
Wagner, Kevin.....	TP3b-4		
Wahlberg, Bo.....	TP8b1-8		

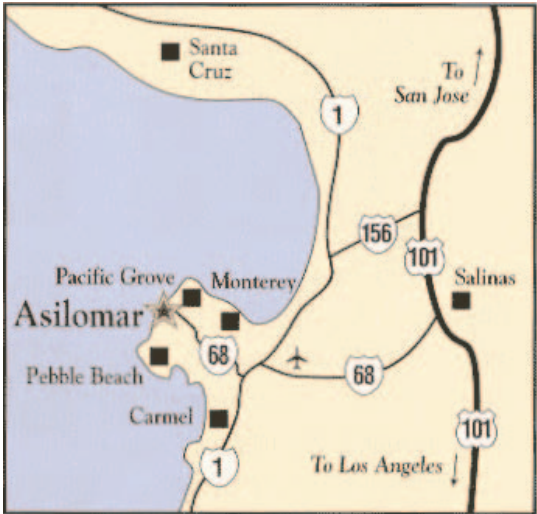
NAME	SESSION	NAME	SESSION
Xu, Xiaoxiao	TP8a2-6	Zhang, Wenyi	WA6b-2
Xue, Ming	WA6a-1	Zhang, Xi	MA8b2-7
Yan, Jie	TA3b-4	Zhang, Xinmiao	TA7-1
Yan, Yuan	TP4a-1	Zhang, Ying Jun	TA8b1-13
Yan, Zhiyuan	TA7-3	Zhang, Zaichen	TA8b1-7
Yang, Allen	TA5b-4	Zhang, Zhenliang	TP8b2-8
Yang, Chao	TA8a1-13	Zhao, Chen	TA8a1-7
Yang, En-hui	MA8b4-6	Zhao, Qing	MP3b-2
Yang, Ge	MP5a-3	Zhao, Qing	TP8a4-1
Yang, Jing	MA1b-1	Zheng, Fang	WA5a-3
Yang, Jingpei	TP4b-2	Zheng, Gan	TA8a4-8
Yang, Liuqing	TA8b1-7	Zhong, Lin	WA4a-2
Yang, Ming	TA5a-4	Zhou, Haichuan	MP1a-1
Yang, Shuang (Echo)	WA4b-4	Zhou, Meng	MA8b5-6
Yang, Zhe	TP6b-5	Zhou, Mu	WA6b-4
Yao, Hongxun	TA5a-3	Zhou, Weiwei	TA8a2-4
Yao, Kung	TP8a3-5	Zhou, Xiangrong	MP7b-1
Yao, Shun	MP8a4-1	Zhou, Xiangyun	MA8b2-5
Yener, Aylin	MP2a-2	Zhou, Xiangyun	MA8b2-7
Yener, Aylin	TP8b2-3	Ziniel, Justin	TP3a-4
Yilmaz, Yasin	TP2a-2	Zoltowski, Michael	WA1a-3
Ying, Lei	TP8a4-3	Zoltowski, Michael	WA1b-3
Yoshinari, Akihiro	MA8b4-3	Zorzi, Michele	TP2b-4
Yousefi, Mohammadmahdi R.	TA8a1-3	Zummo, Salam	MP8a1-4
Yu, Chi-li	MP7b-2		
Yu, Kai	TA5a-4		
Yu, Miaoli	WA3b-4		
Yu, Weichuan	TA8a1-13		
Yu, Yao	TP5-5		
Zanella, Alberto	TA1a-4		
Zarifi, Keyvan	TA6b-2		
Zatman, Michael	WA3a-3		
Zavlanos, Michael M.	TP4a-2		
Zeger, Linda	MA2b-1		
Zejnilovic, Sabina	MA4b-4		
Zerguine, Azzedine	MA8b5-2		
Zerguine, Azzedine	MP8a1-4		
Zerguine, Azzedine	MP8a1-2		
Zetterberg, Per	TA8a3-2		
Zhai, Yixuan	TP8a4-1		
Zhang, Hao	TP4b-1		
Zhang, Honghai	TP1a-3		
Zhang, Jiajun	MP2b-3		
Zhang, Jianqiu	TA8a1-11		
Zhang, Jun Jason	MA8b5-6		
Zhang, Jun Jason	TP6a-4		
Zhang, Jun Jason	TP8b1-2		
Zhang, Lin	TP8a2-2		
Zhang, Qi	MP8a5-8		
Zhang, Qilin	WA6a-1		
Zhang, Rong	MA8b4-2		
Zhang, Rui	TA8b1-10		
Zhang, Wensheng	TP2b-1		
Zhang, Wenyi	TA8b3-8		

Notes

Notes

Notes

Notes



SS&C Conf. Corp.

P.O. Box 8236

Monterey, CA 93943