

2012 Asilomar Conference Session Schedule

Sunday Afternoon, November 4, 2012

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

Monday Morning, November 5, 2012

- 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 Graphical Models in Signal Processing
MA2b Threshold Limits in Array Processing: Performance Analysis and Methods
MA3b Full-Duplex MIMO Communications
MA4b Green Radio
MA5b Voice Coding
MA6b DSP Architecture for Wireless Communications
MA7b Brain Dynamics: Improving Spatial and Temporal Resolution
MA8b1 Communication Systems I (Poster)
MA8b2 Array Signal Processing I (Poster)

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

Monday Afternoon, November 5, 2012

1:30 - 5:10 PM AFTERNOON SESSIONS

- MP1a Compressive Sensing
MP1b Signal Processing and Learning in Complex Systems
MP2a Source Localization in Distributed Sensor Arrays
MP2b Network Beamforming
MP3a Large-Scale MIMO Systems
MP3b Coordinated Multipoint
MP4a Cognitive Radio Networks
MP4b Machine-to-Machine Communications and Networks
MP5a Image and Video Coding
MP5b Convex Optimization in Image and Video Analysis
MP6a Computer Arithmetic
MP6b Reconfigurable Architectures, Many-Core, Multi-Core, and SoC
MP7a Medical Image Analysis
MP7b Biological Modeling and Signal Analysis
MP8a1 MIMO Communications and Signal Processing I (Poster)
MP8a2 Signal Processing and Adaptive Systems I (Poster)

Monday Evening, November 5, 2012

- 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.

2012 Asilomar Conference Session Schedule (continued)

Tuesday Morning, November 6, 2012

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

8:00 AM - 5:00 PM Registration

8:15 - 12:00 PM MORNING SESSIONS

- TA1a MIMO in Optical Communications
- TA1b Wireless Video Transmission Systems
- TA2a Game Theory in Communications
- TA2b Coding Theory for the Next-Generation Storage Systems
- TA3a Multiuser and Massive MIMO
- TA3b Compressive Estimation
- TA4a Social Networks
- TA4b Signal Processing for Cyber-Security and Privacy in Networks
- TA5a 3D Video Processing
- TA5b Computer Arithmetic Accelerators for Signal Processing
- TA6a Low Power I
- TA6b Low Power II
- TA7a Biological Networks and Machine Learning
- TA7b Sequence and Genome Analysis
- TA8a1 Array Signal Processing II (Poster)
- TA8a2 Signal Processing and Adaptive Systems II (Poster)
- TA8b1 Communication Systems II (Poster)
- TA8b2 MIMO Communications and Signal Processing II (Poster)
- TA8b3 Architecture and Implementation of Signal Processing Systems (Poster)

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

Tuesday Afternoon, November 6, 2012

1:30 - 5:35 PM AFTERNOON SESSIONS

- TP1a Network Optimization
- TP1b Distributed Signal Processing
- TP2a Consensus Based Algorithms
- TP2b Cooperative Adaptation and Learning
- TP3a Information Theoretic Signal Processing
- TP3b Underwater Communications
- TP4a Decoding and Detection
- TP4b Smart Grid Communications and Networks
- TP5a Design Methodologies and Architectures for Communications
- TP5b Interference Alignment
- TP6a Wireless Full Duplex
- TP6b Biological Image Analysis
- TP7a MIMO Radar and Waveform Design
- TP7b Speech Processing and Speech Recognition
- TP8a1 Relay Networks (Poster)
- TP8a2 Sensor and Interference Networks (Poster)
- TP8a3 Design Methodology and Computer Arithmetic (Poster)
- TP8b1 Speech, Image, and Video Processing (Poster)
- TP8b2 Biomedical Signal and Image Processing (Poster)

Tuesday Evening Open Evening — Enjoy the Monterey Peninsula

2012 Asilomar Conference Session Schedule (continued)

Wednesday Morning, November 7, 2012

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 Feedback and Cooperation
WA1b Security
WA2a Distributed Algorithms for Wireless Networks
WA2b Topics in Wireless Networking
WA3a Adaptive Signal Processing
WA3b Compressive Signal Processing
WA4a Interference and Cognition
WA4b OFDM(A)
WA5a Applications of Video Processing
WA5b Image and Video Classification
WA6a CSI Feedback
WA6b Beamforming and Relaying
WA7a Applications of Sensor Array Processing
WA7b DOA Estimation
WA8 Tutorial – Coding Methods for Emerging Storage Systems

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

WA8 - TUTORIAL

Coding Methods for Emerging Storage Systems – Prof. Lara Dolecek and Prof. Anxiao (Andrew) Jiang

Abstract - Recent surge in large-scale data storage systems has created an immediate need to develop new coding methodologies attuned to the physical properties of the emerging non-volatile memory technologies. In this tutorial, we will first discuss new channel models for these technologies and demonstrate why the existing coding methods are increasingly inadequate. We will then survey recently proposed error correcting codes, modulation schemes and rewriting codes, all designed to meet the physical characteristics of the non-volatile memories while ensuring maximum lifetime and reliability. The tutorial will conclude with a discussion of several open problems in this area.

Bio: Prof. Lara Dolecek is an assistant professor in the Electrical Engineering Department at UCLA where she heads the Laboratory for Robust Information Systems. She received NSF CAREER Award in 2012, Hellman Fellow award in 2011, and David J. Sakrison Award from the EECS Department at UC Berkeley in 2007. Prof. Anxiao (Andrew) Jiang is an associate professor in Computer Science and Engineering Department of TAMU. He received NSF CAREER Award in 2008 and the 2009 IEEE Communications Society Best Paper Award in Signal Processing and Coding for Data Storage.