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
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.
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
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.