

AGENDA
Signal and Image Sciences Workshop
Center for Advanced Signal and Image Sciences
Lawrence Livermore National Laboratory

FRIDAY, NOVEMBER 17, 2006 BUILDING 482 AUDITORIUM

- 8:00 AM Registration and Continental Breakfast
- 8:50 AM Opening Remarks, Introductions Randy Roberts, CASIS Co-Director
- 9:00 AM Professor Sanjit K. Mitra, Keynote Speaker, Department of Electrical Engineering–Systems,
University of Southern California
Recent Research Results in Image and Video Processing
- 10:00AM MORNING BREAK—Complimentary

NIF Optics Inspection
Session Chair: Laura Kegelmeyer

- 10:30 AM NIF Optics Inspection Analysis Laura Kegelmeyer
- 10:45 AM NIF Optics Damage Inspection Systems Alan Conder
- 11:00 AM Parallel Image Processing for NIF Optics Inspection Steve Glenn
- 11:15 AM Performance Improvements in NIF Optics Inspection Software Philip Fong
- 11:30 AM Ultrasonic Shear Wave Imaging of Optic Features Michael J. Quarry
- 11:45 AM LUNCH BREAK—Complimentary

Model-Based Signal Processing and Estimation
Session Chair: David Chambers

- 1:00 PM Detection of Seismic Events with Model-Based Signal Processing Arthur Rodgers
- 1:15 PM Model-Based Layer Estimation Using a Hybrid Genetic/Gradient
Search Optimization Algorithm David H. Chambers
- 1:30 PM Introduction to Particle Swarm Optimization Sean K. Lehman
- 1:45 PM A Single-Layer Network of Unscented Kalman Filters Adaptively
Fused by the Mixture-of-Experts Method Eric Breitfeller
- 2:00 PM Measurement Uncertainty for Automatic Alignment Algorithm Abdul Awwal
- 2:15 PM Spectral Analysis Options Karl Nelson
- 2:30 PM AFTERNOON BREAK—Complimentary

Image Processing and Analysis
Session Chair: Dave Paglieroni

- 3:00 PM Review of the State of the Art in Image Registration Judy Liebman
- 3:15 PM Progressive Dense Correspondence with Applications to Video Analysis Mark Duchaineau
- 3:30 PM A Linear Consolidation Approach for Automatically Extracting Roads
of Variable Widths from Overhead Images Barry Y. Chen
- 3:45 PM Algorithms for Fast, Robust Model-Based Polygon Detection Siddharth Manay
- 4:00 PM ADJOURN