

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

THURSDAY, NOVEMBER 16, 2006 BUILDING 482 AUDITORIUM

- 8:00 AM Registration and Continental Breakfast
- 8:45 AM Opening Remarks, Introductions Stephen Azevedo, CASIS Director
- 8:55 AM Welcome from Engineering and NIF Dr. Steven Patterson, AD Engineering, and Dr. Ed Moses, AD NIF
- 9:00 AM Dr. James Candy, Keynote Speaker, Chief Scientist for Engineering, LLNL; Adjunct Professor, UC Santa Barbara
A Bayesian Approach To Nonlinear Statistical Signal Processing
- 10:00AM MORNING BREAK—Complimentary

Analysis of Massive Datasets
Session Chair: Chandrika Kamath

- 10:30 AM Estimating Missing Features to Improve Multimedia Information Retrieval Nicole Love
- 10:45 AM Analysis of Rayleigh-Taylor Instability: Bubble and Spike Count Abel Gezahegne
- 11:00 AM Pattern Recognition for Massive, Messy Data Philip Kegelmeyer (Sandia)
- 11:15 AM Visualization and Analysis of 2D and 3D Image Data with VisIt Mark Miller
- 11:30 AM Visualization of Experimental and Numerical Data at the
Sustained Spheromak Physics Experiment Carlos A. Romero-Talamás
- 11:45 AM LUNCH BREAK—Complimentary

Nondestructive Evaluation
Session Chair: Harry Martz

- 1:00 PM Morphological Algorithms for Non-Destructive Evaluation Siddharth Manay
- 1:15 PM Super-Resolution Algorithms for Ultrasonic Nondestructive Evaluation Imagery Grace A. Clark
- 1:30 PM Time Resolved Measurement of Transient Acoustic Waves Using a
Frequency Domain Photoacoustic Microscopy System Oluwaseyi Balogun
- 1:45 PM Micron Scale Resolution of Structural Features in Mesoscale Material
Systems Using Laser Based Acoustic Microscopy Oluwaseyi Balogun
- 2:00 PM Fusion of X-ray and Ultrasound Images for As-Built Modeling Grace A. Clark
- 2:15 PM Surface Acoustic Wave Microscopy of Optics Michael J. Quarry
- 2:30 PM AFTERNOON BREAK—Complimentary

Imaging Methodology
Session Chair: Mike Moran

- 3:00 PM Performance Modeling of the NIF Neutron Imaging System Carlos A. Barrera
- 3:15 PM Coherent Addition of Pulse for Energy (CAPE) Instrument
and Data Fitting Model Study Michael Rushford
- 3:30 PM Curvature Wavefront Sensing Using an Extra-Focal Image and
an Intra-focal Image of a Bright Star Donald Phillion
- 3:45 PM The Compact Compton Imager: A Spectroscopic, Large Field-of-View
Gamma-Ray Camera Lucian Mihailescu
- 4:00 PM Distributed Object Classification in an Imaging Sensor Network Leo Szumel (UC Davis)
- 4:15 PM Virtual Geographic Routing Michael E. Goldsby (Sandia)
- 4:30 PM ADJOURN