

NANO2002 Workshop III: Data Analysis and Imaging

Monday November 4, 2002

- 8:30–9:30 *Check-In/Light Breakfast (Hosted by IPAM)*
- 9:30–10:15 **Guillermo Sapiro** (University of Minnesota)
Imaging and Nano
- 10:15–11:00 **Richard Kiehl** (University of Minnesota)
Image Processing Functions in Cellular Nonlinear Networks Comprised of Simple Nanoscale Elements
- 11:00–11:30 *Break*
- 11:30–12:15 **Peter Catrysse** (Stanford University)
Light Filters using Patterned Metal Layers in CMOS Technology
- 12:15–2:00 *Lunch (on your own)*
- 2:00–3:00 **Tamas Roska** (Hungarian Academy of Science)
Cellular wave computers
- 3:00–3:30 *Break*
- 3:30–4:30 **Horst Haussecker** (Intel)
Quantitative Nano-Feature Analysis in Semiconductor Technology and Beyond
- 4:30–5:30 **Wolfgang Porod** (University of Notre Dame)
Nanotechnology for imaging: opportunities and challenges
- 5:30–7:00 *Wine/Cheese Reception (Hosted by IPAM)*

Tuesday November 5, 2002

- 8:30–9:30 *Continental Breakfast*
- 9:30–10:30 *Informal Discussion*
- 10:30–11:00 *Break*
- 11:00–12:00 **Supriyo Bandyopadhyay** (Virginia Commonwealth University)
Noise in Nanostructured Systems
- 12:00–2:00 *Lunch (on your own)*
- 2:00–3:00 **SukHwan Lim** (Stanford University)
CMOS Imaging: Technology & Applications
- 3:00–3:30 *Break*

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- 3:30–4:30 **Frank Hoppensteadt** (Arizona State University)
Perturbation Methods for Systems with Parametric Noise
- 4:30–5:30 **DeLiang Wang** (Ohio State University)
An Oscillatory Correlation Approach to Scene Segmentation
- 5:30–6:30 **Vwani Roychowdhury** (UCLA)

Wednesday November 6, 2002

- 8:30–9:30 *Continental Breakfast*
- 9:30–10:30 **Eli Yablonovitch** (UCLA)
The Inverse Problem in Engineering: Nano-photonics, and Nano-electronics
- 10:30–11:00 *Break*
- 11:00–12:00 **Martin Rumpf** (University of Duisburg, Germany)
Geometric Methods in 2D and 3D image matching
- 12:00–1:30 *Lunch (Hosted by IPAM)*
- 1:30–2:00 **Achi Brandt** (Weizmann Institute of Science)
Segmentation and Boundary Detection Using Multiscale Intensity Measurements
- 2:00–3:00 **Tom Malzbender** (Hewlett Packard Laboratories)
Image-Based Surface Relighting and Enhancement
- 3:00–3:30 *Break*
- 3:30–4:30 **Richard Superfine** (University of North Carolina)
Nanotechnology Needs: Image analysis and graphics for control and understanding
- 4:30–12:00 *Conclusion*

