

Advances in Scientific Computing, Imaging Science and Optimization: Stan Osher's 70th Birthday Conference

Wednesday April 4, 2012

- 8:00–8:50 *Check-In/Light Breakfast (Hosted by IPAM)*
- 8:50–9:00 *Welcome and Opening Remarks*
- 9:00–9:40 **Bjorn Engquist** (University of Texas at Austin)
Multiscale methods for dynamical systems
- 9:40–10:00 *Break*
- 10:00–10:40 **Chi-Wang Shu** (Brown University)
Shock capturing methods for CFD: a review of Osher's contributions
- 10:40–11:00 *Break*
- 11:00–11:40 **Richard Tsai** (University of Texas at Austin)
An Implicit Interface Boundary Integral Method for Poisson's Equation on Arbitrary Domains
- 11:40–12:00 *Break*
- 12:00–12:40 **Hongkai Zhao** (University of California, Irvine (UCI))
Solving Partial Differential Equations on Point Clouds
- 12:40–2:00 *Lunch (on your own)*
- 2:00–2:40 **Lawrence Carin** (Duke University)
Nested Dictionary Learning for Hierarchical Organization of Imagery and Text
- 2:40–3:10 *Break*
- 3:10–3:50 **Russel Caflisch** (Institute for Pure and Applied Mathematics)
The level set method for epitaxial growth
- 3:50–4:20 *Break*
- 4:20–5:00 **Chiu-Yen Kao** (Ohio State University)
Lax-Friedrichs Fast Sweeping Methods



Thursday April 5, 2012

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:40 **Peter Jones** (Yale University)
Nearest Neighbor Algorithms and Applications in Image Processing
- 9:40–10:10 *Break*
- 10:10–10:50 **Mark Green** (Institute for Pure and Applied Mathematics)
Steiner Polynomials, Wulff Flows, and Curvature Inequalities for Convex Plane Curves
- 10:50–11:20 *Break*
- 11:20–12:00 **Guillermo Sapiro** (University of Minnesota, Twin Cities)
Stan Osher and Image Sciences
- 12:00–1:30 *Lunch (on your own)*
- 1:30–2:10 **Eli Yablonovitch** (University of California, Berkeley (UC Berkeley))
Shape Optimization for All Future Thin-Film Solar Cells
- 2:10–2:40 *Poster Session & Break*
- 2:40–3:20 **Danping Peng** (Luminescent Technologies)
Inverse Problems in Computational Lithography
- 3:20–3:50 *Poster Session & Break*
- 3:50–4:30 **Wotao Yin** (Rice University)
Augmented L1 and Nuclear-Norm Minimization with a Globally Linearly Convergent Algorithm
- 4:30–5:30 *Poster Session & Reception (Hosted by IPAM)*
- 5:30 *Walk to UCLA Faculty Center (only if attending banquet)*
- 6:00–9:00 *Event Banquet (UCLA Faculty Center)*

Friday April 6, 2012

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:40 **Ronald DeVore** (Texas A & M University)
Is Greedy Good?
- 9:40–10:10 *Break*
- 10:10–10:50 **Zuowei Shen** (National University of Singapore)
Osher's Bregman Iterations
- 10:50–11:20 *Break*

(Friday schedule continued on next page)

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- 11:20–12:00 **Don Goldfarb** (Columbia University)
An Accelerated Linearized Bregman Method
- 12:00–1:30 *Lunch (on your own)*
- 1:30–2:10 **Ron Fedkiw** (Stanford University)
Stanley Osher, UCLA Math, and Hollywood Special Effects
- 2:10–2:40 *Break and Stan's Birthday Acknowledgement*
- 2:40–3:20 **Barry Merriman** (University of California, Los Angeles (UCLA))
Genomes, Math and Money
- 3:20–3:50 *Break*
- 3:50–4:30 **Andrea Bertozzi** (University of California, Los Angeles (UCLA))
Geometric methods in image processing and data fusion

