

# THE ABEL SYMPOSIUM 2006

## Titles of talks

Titles may be subject to change, and they are added as they come in

Doug Arnold	<i>Finite element exterior calculus and its applications</i>
David Bindel	<i>Modeling resonant microsystems: toward cell phones on a chip?</i>
Folkmar Bornemann	<i>The whence and whither of using pdes in computer vision</i>
Franco Brezzi	<i>Recent developments in Mimetic Finite Differences</i>
Albert Cohen	<i>Some remarks on Compressed Sensing</i>
Wolfgang Dahmen *	<i>Adaptive multiscale methods</i>
Ioana Dumitriu	<i>Toward accurate polynomial evaluation in rounded arithmetic: foundations for the future</i>
Alan Edelman	<i>New Applications of Random Matrix Theory or Stochastic Eigen-analysis</i>
Bjørn Engquist	<i>Heterogeneous Multi-scale Methods</i>
Anna Gilbert	<i>Putting the "Computational" in "Computational Harmonic Analysis"</i>
Leslie Greengard *	<i>Modern algorithms and the future of mathematical software</i>
Tom Hou	<i>The Interplay between Local Geometric Properties and the Global Regularity for the 3D Incompressible Euler Equations</i>
Peter D. Lax	<i>The numerical solution of hyperbolic systems of conservation laws</i>
Christian Lubich	<i>Variational approximations in quantum dynamics</i>
Nilima Nigam	<i>The good, the bad, and the not-so-ugly: algorithms for computational scattering</i>
Guillermo Sapiro	<i>Mathematics and computation in image processing and other high dimensional signals</i>
Stephen Smale	<i>The mathematics of learning, from machine to human</i>
Rob Stevenson	<i>Optimal adaptive finite element methods</i>
Eitan Tadmor	<i>Theory and computation of entropy stability in quasilinear PDEs</i>
Mike Todd *	<i>The role of ellipsoids in optimization theory</i>
Anna-Karin Tornberg	<i>Fluid-structure interactions: the collective dynamics of suspensions.</i>
Paul Tupper	<i>A difficult open conjecture in the analysis of molecular dynamics</i>
Divakar Viswanath	<i>Strange attractors from Lorenz to turbulence</i>
Shing-Tung Yau	<i>Minimization with the affine normal direction</i>

