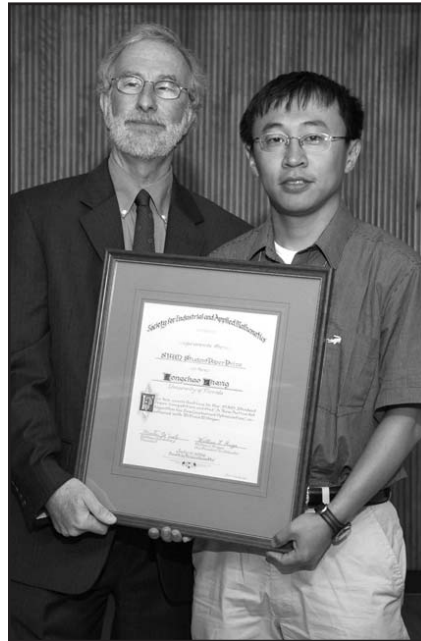


Talented Researchers at All Levels Honored at SIAM's Boston Meeting



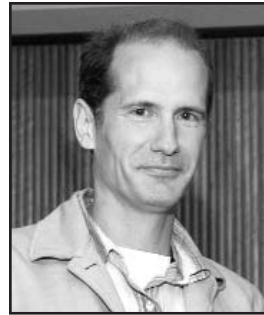
Reflecting the widely ranging interests of George Pólya, the SIAM prize created in his memory alternately honors contributions in combinatorics and in the many other areas in which he worked, including approximation theory, complex analysis, number theory, orthogonal polynomials, probability theory, and mathematical discovery and learning. This year's recipients—from left, Gregory Lawler (Cornell University), Wendelin Werner (Université Paris-Sud), and Oded

Schramm (Microsoft Corporation)—were cited “for their groundbreaking work on the development and application of stochastic Loewner evolution.” Of particular note, according to the prize citation, is their “rigorous establishment of the existence and conformal invariance of critical scaling limits of a number of 2D lattice models arising in statistical physics.” Also noteworthy: In August, at the ICM in Madrid, Werner received a Fields Medal in part for this work.

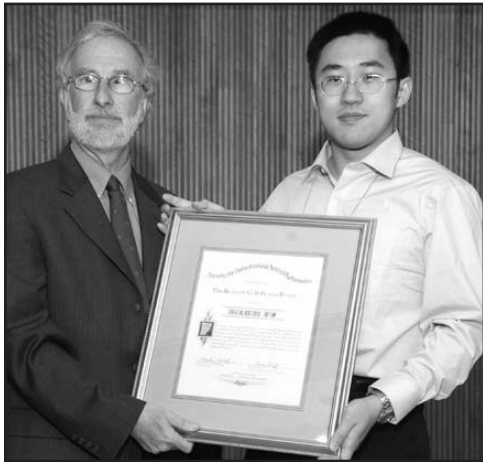


SIAM awarded three Student Paper Prizes in 2006, to (clockwise from upper right) Laurent Demanet (California Institute of Technology), whose paper, “The Curvelet Representation of Wave Propagators Is Optimally Sparse,” was co-authored by Emmanuel Candès; Emanuele Viola (Harvard University), for “Pseudorandom Bits for Constant Depth Circuits with Few Arbitrary Symmetric Gates”; and Hongchao Zhang (University of Florida), for a paper titled “A New Active Set Algorithm for Box Constrained Optimization,” co-authored by William Hager. The students presented their papers in a special session on Student Day, July 11, during the SIAM Annual Meeting in Boston.

Michael Shelley of the Courant Institute of Mathematical Sciences, New York University, gave the 2006 Julian Cole Lecture, "Bodies Interacting with and through Fluids," at the 2006 SIAM Annual Meeting. "Shelley's work," according to the prize committee, "like that of Julian D. Cole, whom we honor, emphasizes mathematical modeling and scientific computa-



tion in fluid dynamics and other fields. He has worked collaboratively with many individuals, making significant advances in our understanding of basic phenomena from multi-component fluids and multiphase materials to neuronal activity in the visual cortex."



Xinwei Yu, currently a CAM Assistant Professor at UCLA, accepted the 2006 Richard C. DiPrima Prize from SIAM president Martin Golubitsky at the SIAM Annual Meeting. Yu received his PhD in applied and computational mathematics from Caltech in 2005. In his dissertation, "Localized Non-Blowup Conditions for

3D Incompressible Euler Flows and Related Equations," according to the prize citation, "he obtains new necessary conditions for blowup of solutions of the three-dimensional incompressible Euler equations."



Irene Fonseca (center), director of the Center for Nonlinear Analysis in the Department of Mathematical Sciences at Carnegie Mellon University, gave the AWM-SIAM Sonia Kovalevsky Lecture at the 2006 SIAM Annual Meeting. Fonseca, shown here with Martin Golubitsky and Barbara Keyfitz, president of the Association for Women in Mathematics, was chosen "in recognition of her fundamental contributions and leadership in analysis and applied mathematics, especially in nonlinear partial differential equations and the calculus of variations." Applications of her work range "from

materials science to image reconstruction," the citation continues; also mentioned are her "nearly 100 papers which have set new directions and challenges." In the lecture, titled "New Challenges in the Calculus of Variations," Fonseca discussed the variational approach as it has been brought to bear on many problems in applied analysis, including problems involving foams, imaging, micromagnetics, and thin structures. Fonseca was also cited for her "notable service record": "She has initiated programs to attract young researchers, and her former post-docs and students can be found at distinguished institutions. She is an inspiration to the entire mathematics community, especially to the women's mathematics community."