## Welcome to Our New Faculty



## Mathieu Desbrun: Associate Professor of Computer Science

**Professor Desbrun's** interests revolve around the study of discrete differential geometry, including processing, animation, and simulation of meshed geometry, as well as theoretical work on foundations of computation on discrete manifolds.

Before moving to Caltech, he was an Assistant Professor in Computer Science at the University of Southern California (USC) where he received an NSF CAREER Award in 2001 and the ACM SIGGRAPH Significant New Researcher Award in 2003.

Desbrun received his Engineering Degree (equivalent of MEng) in Computer Science with distinction from the National Engineering School of Computer Science and Applied Mathematics in Grenoble (1991–1994), his Graduate Degree (equivalent of MSc) in

Computer Graphics and Vision at the University of Grenoble, France (1993–1994), and his PhD in Computer Science at the National Polytechnic Institute of Grenoble, France (1995–1998).



**Houman Owhadi:** Assistant Professor of Applied and Computational Mathematics and Control and Dynamical Systems

**Professor Owhadi's** interests are in applied mathematics, particularly probability theory, partial differential equations, homogenization, turbulence theory, game theory with large number of agents, stochastic analysis, large deviations, heat kernels, non-equilibrium statistical mechanics, and transport and diffusion in random media. One of Owhadi's particular areas of interest is the multiscale analysis of partial differential equations and stochastic differential equations, more precisely the mathematical description and analysis of systems involving a very large number of scales without any separation between these scales.

Owhadi received Master's degrees from École Polytechnique (Paris), the University of Jussieu (Paris), and the École Nationale des Ponts et Chaussées. He received a PhD in

Mathematics from the Swiss Federal Institute of Technology (2000). Most recently Owhadi was a senior civil servant at the Corps des Ponts et Chaussés, an Aly Kaufman Fellow at Technion, and a CNRS Research Fellow at the University of Provence.

## **Moore Distinguished Scholar**



Sandra M. Troian: Professor of Chemical Engineering, Princeton University

**Professor Troian's** research interests are in high-resolution lithography by microscale contact printing; microfluidic delivery systems using micropatterned thermocapillary flow; boundary conditions for liquid on solid flows; rivulet instabilities in driven spreading films; onset and evolution of digitated structures in spreading surfactant films; and slip behavior and foam stabilization in polymer-surfactant films.

Troian is a Professor of Chemical Engineering at Princeton University, and is also an affiliated faculty member in the Departments of Physics, Mechanical and Aerospace Engineering, and Applied and Computational Mathematics. Sandra Troian received her Bachelor's degree in Physics from Harvard University in 1980, a Master's in Physics at Cornell University in 1984, and her PhD in Physics from Cornell University in 1987.