

**Employment**

- **UCLA**, Assistant Adjunct Professor, July 2009–present.
- **UCLA**, Postdoctoral Fellow, August 2008–July 2009.  
Mentor: Andrea L. Bertozzi.

**Education**

- **Brown University**, Ph.D., Applied Mathematics, May 2008.  
Thesis title: *The Differential Geometry of Landmark Shape Manifolds: Metrics, Geodesics, and Curvature*.  
Advisor: David B. Mumford
- **UC Berkeley**, M.S., Electrical Engineering, May 2001.  
Thesis title: *Random Sampling of a Continuous-time Stochastic Dynamical System: Analysis, State Estimation, and Applications*.  
Advisors: Shankar S. Sastry and Michael I. Jordan
- **Univ. of Padova** (Italy), Laurea, Telecommunications Engineering, Dec. 1999.  
Thesis title: *A Probabilistic Approach to 3D Autonomous Navigation*.  
Advisor: Giorgio Picci

**Research interests**

- Differential Geometric methods for Shape Analysis; Computer Vision; Image Processing; Medical Imaging; Statistical Filtering; Control Theory.

**Grants**

- **PI**: ONR Grant #N000141010808, \$29,291, 2010–2011  
(co-PIs: L. Vese, UCLA; F. Memoli, Stanford University; M. Reuter, MIT)
- **co-PI**: ONR Grant #N000140910256, \$240,000, 2008–2011  
(PI: A. Bertozzi, UCLA; co-PI: T. Chan, HKUST)

**Fellowships**

- Dissertation Fellowship, Brown University. Academic Year 2006–2007.
- Florence Harnish Fellowship, Brown University. Fall 2004.
- Aldo Gini Fellowship, awarded by the Aldo Gini Foundation (Italy) to meritorious Italian students pursuing their doctoral degrees abroad. Fall 2003.

**Journal papers**

- M. MICHELI, P. MICHOR AND D. MUMFORD, *Sectional Curvature in terms of the Cometric, with Applications to the Riemannian Manifolds of Landmarks*. Submitted. Available on: <http://arxiv.org/abs/1009.2637>
- M. MICHELI, P. MICHOR AND D. MUMFORD, *Sobolev Curvature of  $\text{Diff}(\mathbb{R}^n)$  and some of its Chow Quotients*. In preparation.
- M. MICHELI, Y. LOU, A. CENEDESE, S. SOATTO AND A. BERTOZZI, *Recovery of Images affected by ground-level Turbulence via Dynamic Texture modeling and Blind Deconvolution*. In preparation.
- E. CINQUEMANI AND M. MICHELI, *State Estimation in Stochastic Hybrid Systems with Sparse Observations*. IEEE Trans. Automatic Control, 51(8):1337–1342, August 2006.

**Conference papers**

- M. MICHELI, *Effects of Curvature on the Analysis of Landmark Shape Manifolds*. Proc. of the 2008 IEEE Int. Conf. on Image Processing, San Diego, Oct. 2008.

- E. CINQUEMANI, M. MICHELI, G. PICCI., *Fault Detection in a Class of Stochastic Hybrid Systems*, Proc. of the 43rd IEEE Conf. on Decision and Control (CDC 2004), Atlantis, Paradise Island, Bahamas, Dec. 2004.
- M. MICHELI AND M. I. JORDAN, *Random Sampling of a Continuous-time Stochastic Dynamical System*. Proc. 15th Int. Symp. on the Mathematical Theory of Networks and Systems (MTNS 2002), U. of Notre Dame, Aug. 2002.

**Teaching****University of California, Los Angeles**

- Instructor, Math 32B, *Calculus of Several Variables*, Winter 2011 (scheduled).
- Instructor, [Math 32A](#), *Calculus of Several Variables*, Fall 2010 (current).
- Instructor, [Math 120B](#), *Differential Geometry*, Winter 2010.
- Instructor, [Math 120A](#), *Differential Geometry*, Spring 2010.

**Brown University**

- Instructor, [AM120](#), *Operations Research: Probabilistic Models*, Spring 2006.
- Guest Lecturer and T.A., [AM282-S01](#), *The Mathematics of Shape, with Applications to Computer Vision*, Spring 2006 (Instructor: David Mumford).
- T.A., [AM18](#), *Modeling the World with Mathematics: clocks, waves, chaos and chance*, Spring 2003 (Instructor: David Mumford).
- T.A., [AM171](#), *Information Theory*, Fall 2002 (Instructor: Stuart Geman).

**University of California, Berkeley**

- T.A., [EE42A](#), *Introduction to Electronics for Computer Science*, Fall 2000 (Instructor: Richard White).

**Service**

- Organizer of the *Special Session on Metric and Riemannian methods in Shape Analysis*, AMS Fall Western Conference, UCLA, October 2010.
- Organizer (with F. Memoli of Stanford University and M. Reuter of MIT) of the minisymposia *Metric and Riemannian methods in Shape Analysis (parts I & II)*, SIAM Conference on Imaging Science, Chicago, Illinois, April 2010.
- Organizer (with L. Vese of UCLA) of the *Image Processing Seminars* at UCLA: [http://www.math.ucla.edu/~micheli/IPS/IPS\\_home.html](http://www.math.ucla.edu/~micheli/IPS/IPS_home.html) April 2009 – present.
- Organizer of the *Pattern Theory Group* seminars, Division of Applied Mathematics, Brown University: <http://www.dam.brown.edu/ptg/seminar.html> September 2006 – May 2008.

**Lab Experience**

- Research Assistant in NavLab (Autonomous Navigation Laboratory) of the Dipartimento di Elettronica e Informatica, Univ. of Padova, Italy. Feb.-Jul. 2000.
- Research Assistant in the Intelligent Machines and Robotics Lab of the Dept. of Electrical Engineering and Computer Sciences, UC Berkeley. Aug.-Nov. 1999.

**Address**

- Work: Department of Mathematics, UCLA, Los Angeles, CA 90095-1555, USA
- Home: 1308 9th Street, Santa Monica, CA 90401, USA

## References

**Professor Andrea L. Bertozzi**

Department of Mathematics  
University of California, Los Angeles  
520 Portola Plaza  
Los Angeles, CA 90095-1555  
310-825-4340  
bertozzi@math.ucla.edu

**Professor Stefano Soatto**

Department of Computer Science  
University of California, Los Angeles  
Boelter Hall 3531D, 405 Hilgard Ave  
Los Angeles, CA 90095-1596  
310-825-4840  
soatto@ucla.edu

**Professor Stuart A. Geman**

Division of Applied Mathematics  
Brown University  
182 George Street  
Providence, RI 02912  
401-863-3088  
Stuart\_Geman@brown.edu

**Professor Luminita A. Vese (teaching)**

Department of Mathematics  
University of California, Los Angeles  
520 Portola Plaza  
Los Angeles, CA 90095-1555  
310-825-4201  
vese@math.ucla.edu

**Professor David B. Mumford**

Division of Applied Mathematics  
Brown University  
182 George Street  
Providence, RI 02912  
617-620-0119  
David\_Mumford@brown.edu

**Professor Peter Michor**

Fakultät für Mathematik  
Universitu of Vienna  
Nordbergstrasse 15  
A-1090 Wien, Austria  
+43-1-4277-50618  
Peter.Michor@univie.ac.at