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EDUCATION

University of Maryland, College Park	Physics	Ph.D., 1996
University of Maryland, College Park	Physics	M.S., 1995
Indian Inst. of Technology, Madras, India	Electrical Engg.	B.Tech., 1992

APPOINTMENTS

Associate Professor	Dept. of Math., U. Arizona	Aug. 2004 – present
Member	Program in Applied Math., U. Arizona	Aug. 2004 – present
Assistant Professor	Dept. of Math., U. Chicago	Oct. 1998 – Aug. 2004
Senior Participant	MRSEC, U. Chicago	May 1999 – Aug. 2004
L. E. Dickson Instructor	Dept. of Math., U. Chicago	Sept. 1997 – Sept. 1998
Postdoctoral Associate	JFI and MRSEC, U. Chicago	Sept. 1996 – Sept. 1998
Grad. Research Assistant	University of Maryland	Aug. 1994–May 1996
Grad. Teaching Assistant	University of Maryland	Aug. 1992–Aug. 1994

RESEARCH INTERESTS

Analysis, Differential geometry, Nonlinear dynamical systems, Probability and Statistical mechanics, applications to physics, continuum mechanics, material science, optics and geoscience.

PROFESSIONAL ACTIVITIES

Organized a minisymposia at SIAM conference on the Analysis of PDE, Scottsdale, AZ, December 2015; AMS Fall Western sectional meeting, Tucson, AZ, October 2012; SIAM conference on the Analysis of PDE, Mesa, AZ, December 2007; SIAM conference on Dynamical Systems, Snowbird, UT, May 2005

Along with Marta Lewicka (U. Pitt), we organized the IMA Hot topics workshop on “Strain Induced Shape Formation: Analysis, Geometry and Materials Science”, May 16-20, 2011, Inst. for Math. and its applications, Minneapolis, MN.

Served on a NSF panel reviewing proposals for the CMG (collaborations in Mathematical Geoscience) program. Reviewed grant proposals for the Hong Kong grants council, FONDECYT (the Chilean science foundation) and KAUST-OCRF (Saudi Arabia).

In the last 5 years, I have refereed articles for Nonlinearity, Physica D, Phys. Rev. E, Journal of Nonlinear Science, Phys. Rev. Letters, Communications in Math. Physics, Journal of Physics D, Archives for Rational Mechanics and Analysis.

SYNERGISTIC ACTIVITIES

Undergraduate research : I have worked extensively with undergraduates; most recently with David Simmons on crumpled sheets as a Geometric meta-material, and Thomas Doehrmann on random walks and resistor networks. My undergraduate collaborators include Jay Vaishnav, Michelle Povinelli, Katie Dunn, Maciej Nicewicz, Laura Schmidt, Isaac Upsal and Raymundo Navarette. Many on this list are women or from groups that are under-represented in the physical sciences, that have gone on to finish their Ph.Ds and to a career in academia/industry.

Undergraduate conferences and summer schools : I gave four lectures at the UMass summer school <http://courses.umass.edu/ssphys/Program.htm> on Soft Solids and Complex Fluids in 2013. Also, I was one of the organizers for a workshop in Nonlinear analysis aimed at encouraging bright undergraduate students to pursue graduate study in mathematical analysis and related fields. <http://math.arizona.edu/~ntna2007>.

Transition to graduate study and research : The Integration workshops help facilitate the transition to graduate study for incoming students to the math graduate program <http://math.arizona.edu/academics/grads/workshops/integration/>. I ran sessions for Analysis in 2006 and 2015; Geometry/Topology in 2009. I mentored for the Research Tutorial groups in 2005, 2006, 2007, 2010, 2011, 2013, 2014 and 2015. Some of the project reports are available at <http://math.arizona.edu/~shankar/projects>. I am the faculty mentor for the SIAM student group at the University of Arizona, and in 2011-12 I helped organize a student working group in applied analysis.

HONORS AND AWARDS

Invited plenary speaker, SIAM conference of Dynamical systems	2005
NSF CAREER Award	2002
Alfred P. Sloan Jr. Research Fellowship	1999
Arthur H. Compton Lecturership, Dept. of Physics, University of Chicago	1997
Naval Research Laboratory/Institute for Plasma Research Fellow	1994–96
Graduate School Fellow at the University of Maryland	1992–94
Ralph D. Myers Award, Department of Physics, University of Maryland	1993
National Science Scholarship, Government of India	1986–1992

SELECTED PUBLICATIONS

1. Restrepo, J. M., Ramírez, J. M. & Venkataramani, S. An Oil Fate Model for Shallow-Waters. *Journal of Marine Science and Engineering* **3**, 1504 (2015).
2. Choi, J., Sethuraman, S. & Venkataramani, S. C. A scaling limit for the degree distribution in sublinear preferential attachment schemes. *Random Structures & Algorithms*. doi:10.1002/rsa.20615 (2015).
3. Restrepo, J. M., Venkataramani, S. C. & Dawson, C. Nearshore sticky waters. *Ocean Modelling* **80**, 49–58 (2014).
4. Kent, S. & Venkataramani, S. C. Sharp interfaces in two-dimensional free boundary problems: Interface calculation via matched conformal maps. *Phys. Rev. E* **90**, 012407 (1 July 2014).
5. Gemmer, J. A., Venkataramani, S. C., Durfee, C. G. & Moloney, J. V. Optical beam shaping and diffraction free waves: A variational approach. *Physica D: Nonlinear Phenomena* **283**, 15–28 (2014).
6. Gemmer, J. A. & Venkataramani, S. C. Shape transitions in hyperbolic non-Euclidean plates. *Soft Matter* **9**, 8151–8161 (2013).
7. Gemmer, J. A. & Venkataramani, S. C. Defects and boundary layers in non-Euclidean plates. *Nonlinearity* **25**, 3553–3581 (2012).
8. Ercolani, N. M. & Venkataramani, S. C. A variational theory for point defects in patterns. *J. Nonlinear Sci.* **19**, 267–300 (2009).
9. Venkataramani, S. C. Lower bounds for the energy in a crumpled elastic sheet—a minimal ridge. *Nonlinearity* **17**, 301–312 (2004).

ADVISORS

Ph.D advisor: E. Ott.

Postdoctoral mentors: L. P. Kadanoff and P. S. Constantin.

ADVISEES

Postdocs: Isabelle Claus, Tien-Tsan Shieh, Tobias Graf, John Gemmer, Nusret Balci, Gabriella Jaramillo.

Graduate Students: John Gemmer (2012), Stuart Kent (2013), Steven Rosenthal (2014), Toby Shearman (current), Guangyu Hui (current), Yuan Tao (current).