Curriculum Vitae
Pedram Safari

Personal

Date of Birth	April 3, 1971
Place of Birth	Tehran, Iran
Nationality/Visa Status	Iranian / H1-B (in process)
Gender/Marital Status	Male/Married

Academic

Education

Columbia University, New York, NY. Ph.D. in Mathematics, May 2000.

Sharif University of Technology, Tehran, Iran. B.S. in Mathematics, *summa cum laude,* June 1993.

Affiliations

The Abdus Salam ICTP, Trieste, Italy. Visiting Fellow, 2004-05.

Institute for Studies in Theoretical Physics and Mathematics (IPM), Tehran, Iran. Post-doctoral Research Fellow, Fall 2001–Spring 2004.

Sharif University of Technology, Tehran, Iran. Assistant Professor, 2000–2001.

Columbia University, New York. Departmental Representative, Summers of 1999 and 2000; Preceptor, 1999–2000.

Research

Interests

Global Analysis, Differential Geometry, Gauge Theory, Geometric Evolution Equations

Selected Publications

- *A local Mayer-Vietoris principle for Seiberg-Witten moduli spaces*, in preparation.
- *Gluing Seiberg-Witten monopoles*; arxiv: math.DG/0311329; Comm. An. Geom., vol. 13 (2005), no. 4, 697–725.
- *e-Publishing* (survey article in Persian), Nashr-e Riyazi **26**, vol. 14 (2003), no. 1, 17–34.
- *What is Seiberg-Witten theory?* (expository article in Persian), Nashr-e Riyazi **23**, vol. 12 (2001), no. 1-2, 4–11.
- *A gluing theorem for Seiberg-Witten moduli spaces*, Ph.D. dissertation, Columbia University, 2000. Dissertation Committee: Masatake Kuranishi, Brian Mangum, John W. Morgan (advisor), Tomasz S. Mrowka, Duong H. Phong (Chair).

Teaching

Supervisor

2. Amin Gholampour, *Symplectic Thom Conjecture, a review of the work of Szabó and Ozsváth*, M.S. thesis, Sharif University, July 2002.

1. Seyyed Mohsen Khalkhali, *Finslerian Geometry as a Generalization of Riemannian Geometry*, M.S. thesis, Sharif University, Oct. 2001.

Instructor. Responsibilities include preparing course materials, lecturing to classes of at most 30 students, designing quizzes and exams and assigning final grades. For most of these courses I have set up class pages, some of which may still be viewed at departmental websites. Courses include Geometry of Manifolds II (graduate), Topics in the Geometry of Manifolds (graduate), Introduction to Modern Analysis, College Algebra and Trigonometry, Linear Algebra, Calculus IIA and Elementary Differential Topology.

- Topics in the Geometry of Manifolds (graduate), Sharif University, 2001–02.
- Geometry of Manifolds II (graduate), Sharif University, Spring 2001.
- Introduction to Modern Analysis, Columbia University, Summers 1999 and 2000. (Also at Sharif University, Spring 2001.)
- College Algebra and Trigonometry, Columbia University, 1998–2000, Summers 1998 and 1997.
- Matrices and Computers, Stevens Institute of Technology, Summer 1998.
- Calculus II A, Columbia University, Summer 1996.
- Elementary Differential Topology, Sharif University of Technology, Spring 1994.

Teaching Assistant. These involved 2–3 hours per week demonstrating principles and discussing problems using the computer algebra system Mathematica as well as the blackboard. Other responsibilities include holding office hours, holding review sessions and grading. I have assisted Calculus I–IV, Basic Topology, Honors Math, Modern Analysis and Modern Algebra.

Professional

Selected Activities

- Reviewer for the *Mathematical Reviews*, since January 15, 2004.
- Member of the Scientific Committee of the 2nd Iranian Geometry-Topology Conference. Amir-Kabir University, Tehran, February 3–5, 2003.
- Co-editor of Shahyad, a festschrift in honor of S. Shahshahani's 60th birthday, May 31, 2002.
- Member of the Editorial Board of Nashr-e Riazi, an expositoray math journal in Persian. Tehran, 2002–2005.

Selected Talks

- *Gluing Seiberg-Witten Monopoles*, Fakultät für Mathematik, Universität Bielefeld, Germany; October 18, 2005. *Invited.*
- *Gluing Seiberg-Witten Monopoles: a mathematical approach*, The Abdus Salam ICTP, Trieste, Italy; March 31, 2004.
- *Seiberg-Witten Equations in Geometry* and *Seiberg-Witten Invariants of Four-Manifolds*, a series of seminars at the School of Physics, Institute for studies in theoretical Physics and Mathematics (IPM), Tehran, Iran. November 1, 4 and 16, 2000. *Invited.*
- *Seiberg-Witten Invariants of Four-Manifolds*, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran, Oct. 31, 2000. *Invited.*
- *Floer Homology and Novikov Rings*, Columbia Gauge Theory Seminar, June 1997.
- *Complex Analysis: The Geometric Viewpoint*, Sharif University of Technology, Tehran, Iran, 1993. A series of lectures, jointly with Saeed Zakeri, following a book by S. Krantz of the same title.

- *Perturbations of Hamiltonian Systems and Abelian Integrals*, Dynamical Systems Seminar, Sharif University of Technology, 1992.
- *Linear Flows in the Complex Domain*, weekly colloquium, Sharif University of Technology, 1991.

Selected Visits

- CMI Summer School on Ricci Flow, 3-manifolds and Geometry, June 20 – July 15, 2005. MSRI, Berkeley, CA. On Clay Institute support.
- CMI Summer School on Floer Homology, Gauge Theory, and Low Dimensional Topology, June 6–26, 2004. Alfréd Rényi Institute of Mathematics, Budapest, Hungary. On Clay Institute support.
- The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy; March-August 2004 and August 1994.
- Laboratoire de Mathématiques, Université Paris-Sud , Orsay, France; January 10–24, 2003.

Computer Skills

- Well acquainted with Mac-OS, UNIX, Windows and MS-DOS.
- Working knowledge of LaTeX, MS Word, Excel, Emacs, Xfig and Mathematica.
- Familiarity with various Adobe and Macromedia softwares.
- Rudiments of programming.

Languages

Persian (native), English (fluent), French (good; DELF: A2), Italian (fair), Arabic (good in reading), German (fair in reading), HTML (good), Java (fair).

More up-to-date and detailed information is available at `http://www.ictp.trieste.it/~psafari/`.

References

John W. Morgan
Professor of Mathematics
Columbia University
2990 Broadway, Mailcode 4406
New York, NY 10027
jm@math.columbia.edu

Cumrun Vafa
Professor of Physics
Harvard University
17 Oxford Street
Cambridge, MA 02138
vafa@physics.harvard.edu

Ramadas T. Ramakrishnan
Professor of Mathematics
The Abdus Salam ICTP
Strada Costiera 11
34014 Trieste, Italy
ramadas@ictp.trieste.it

Patrick Gallagher (Teaching Reference)
Professor of Mathematics
Columbia University
2990 Broadway, Mailcode 4406
New York, NY 10027
pxg@math.columbia.edu