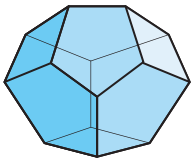
Curriculum Vita
Satyan L. Devadoss

Williams College
Mathematics & Statistics
Williamstown, MA 01267
413.597.3519



Home Address
20 Woodlawn Drive
Williamstown, MA 01267
413.458.0086

email: satyan.devadoss@williams.edu
url: www.williams.edu/mathematics/devadoss

Professional Preparation

Ph.D., Mathematics. Advisor: Professor Jack Morava. *Johns Hopkins University*, May 1999.

B.S., Mathematics. Summa Cum Laude (Valedictorian). *North Central College*, June 1993.

Appointments

Research Member. *Mathematical Sciences Research Institute*, August 2009 – December 2009.

Associate Professor. *Williams College*, July 2007 – present.

Visiting Associate Professor. *Ohio State University*, August 2005 – June 2006.

Assistant Professor. *Williams College*, July 2002 – June 2007.

Arnold Ross Assistant Professor. *Ohio State University*, August 1999 – June 2002.

Publications

1. S. Devadoss, R. Shah, Z. Shao, E. Winston. Deformations of associahedra and visibility polygons, submitted.
2. S. Armstrong, M. Carr, S. Devadoss, E. Engler, A. Leininger, M. Manapat. Particle configurations and Coxeter operads, *Journal of Homotopy and Related Structures*, to appear.
3. J. Danciger, S. Devadoss, J. Mugno, D. Sheehy, R. Ward. Shape deformation in continuous map generalization, *GeoInformatica* 13 (2009) 203- 221.
4. S. Devadoss. A realization of graph-associahedra, *Discrete Mathematics* **309** (2009) 271-276.
5. S. Devadoss, S. Forcey. Marked tubes and the graph multiplihedron, *Algebraic and Geometric Topology* **8** (2008) 2081-2108.
6. S. Devadoss, J. Mugno. Juggling braids and links, *Mathematical Intelligencer* **29** (2007) 15-22.
7. M. Carr, S. Devadoss. Coxeter complexes and graph-associahedra, *Topology and its Applications* **153** (2006) 2155-2168.

8. J. Danciger, S. Devadoss, D. Sheehy. Compatible triangulations and series-triangular graphs, *Computational Geometry: Theory and Applications* **34** (2006) 195-202.
9. S. Devadoss. Combinatorial equivalence of real moduli spaces, *Notices of the A.M.S.* **51** (2004) 620-628.
10. E. Demaine, S. Devadoss, J.S. Mitchell, J. O'Rourke. Continuous foldability of polygonal paper, Proceedings of the 16$^{\text{th}}$ Canadian Conference on Computational Geometry (2004) 64-67.
11. S. Devadoss. A space of cyclohedra, *Discrete and Computational Geometry* **29** (2003) 61-75.
12. S. Devadoss, R. Read. Cellular structures determined by polygons and trees, *Annals of Combinatorics* **5** (2001) 71-98.
13. S. Devadoss. Tessellations of moduli spaces and the mosaic operad, in *Homotopy Invariant Algebraic Structures,* Contemporary Mathematics **239** (1999) 91-114.

Grants

Mellon Foundation Faculty Career Enhancement Grant, 2007-2008.

NSF funding (Co-PI) for the Williams SMALL REU site, 2004-2009.

NSF funding (DMS-0310354) from a joint venture between the NSF and DARPA (under the CARGO initiative), titled *Geodetic Surfaces: Understanding their geometry and topology*, 2003-2007.

NSF travel grant to ICM in Beijing, 2002.

Awards

NCC Outstanding Young Alumni Award, given to graduates of North Central College based on excellence in their careers and who have demonstrated service to the community and to North Central College, 2008.

Henry L. Alder Award, national award given by the MAA for distinguished teaching by a beginning college or university mathematics faculty member, 2007.

Freshman Research Seminar Award, Ohio State University, 2001.

William Kelso Morrill Award (first recipient), awarded for excellence in teaching Mathematics (received the highest student evaluations every semester), Johns Hopkins University, 1995.

Outstanding Student of Mathematics, North Central College, 1991, 1992, 1993.

Theses Advised

Rahul Shah, Williams College: "Compactifications of singular varieties" (2009).

Ezra Winston, Bard College: "Stress analysis, origami folds, and curvature" (2009).

Katie Baldiga, Williams College, "Slicing polyhedra: Searching for convex cross-sections" (2007).

Colin Carroll, Williams College, "Weighted blow-ups of the braid arrangement" (2007).

Tomio Ueda, Williams College: "Thick origami" (2006).

John Mugno, Williams College: "Juggling braids, links, and Artin groups" (2005).

Eric Engler, Williams College: "Blow-ups of spherical Coxeter complexes and their homotopy" (2004).

J. Jacob Tawney, Ohio State University (Masters Thesis): "Jugglinks" (2001).

Journal Referee

Advances in Mathematics, Inventiones, International Mathematics Research Notices, Documenta Mathematica, Topology and its Applications, American Math Monthly, Homology, Homotopy and Applications, SIAM Journal on Discrete Mathematics.

Selected Invited Addresses

Combinatorics Seminar, MIT, April 2009.

Homotopical Algebra and Mathematical Physics, A.M.S. Meeting in Raleigh NC, April 2009.

Applications of Algebraic and Geometric Combinatorics, A.M.S. Meeting in Raleigh NC, April 2009.

Geometry Seminar, Columbia University, February 2009.

Symplectic Geometry Seminar, Columbia University, February 2009.

Geometry Seminar, University of Michigan, April 2008.

Colloquium, Tennessee State University, March 2008.

Faculty Lecture Series, Williams College, February 2008.

Planary talk, Eastern Section A.M.S. Meeting at Rutgers, October 2007.

Colloquium, George Washington University, November 2006.

Homotopy Theory of Compactified Moduli Spaces, Eastern Section A.M.S. Meeting, October 2006.

Mishner Festival of Arts Symposium: *Visions of Higher Dimensions*, Philadelphia PA, October 2006.

Deformation Theory Seminar, University of Pennsylvania, October 2006.

Discrete and Convex Geometry, Eastern Section A.M.S. Meeting in Durham NH, April 2006.

Arrangements and Configuration spaces, Eastern Section A.M.S. Meeting in Durham NH, April 2006.

Combinatorics Seminar, University of Michigan, February 2006.

Low-Dimensional Algebraic Topology Seminar, Ohio State University, December 2005.

Algebraic Topology of Moduli Spaces, Western Section A.M.S. Meeting in Eugene OR, November 2005.

Topology Seminar, Ohio State University, October 2005.

Combinatorics Seminar, MIT, September 2005.

Young Mathematicians Conference, Plenary speaker, Columbus OH, August 2005.

Geometry Seminar, Boston University, March 2005.

Midwest Topology Seminar, February 2005.

Colloquium, Calvin College, February 2005.

Combinatorics Seminar, MIT, November 2004.

Sigma Xi lectures, Williams College, October 2004.

Homotopy Theory in honor of William Browder, Eastern Section A.M.S. Meeting, April 2004.

Topology Seminar, Brandeis University, March 2004.

Valley Geometry Seminar, University of Massachusetts, Amherst, October 2003.

Arrangements in Topology and Algebraic Geometry, Southeastern Section A.M.S. Meeting, March 2003.

Homotopy Theory, Joint Mathematics Meeting in Baltimore MD, January 2003.

Quantum Topology, Central Section A.M.S. Meeting in Columbus OH, September 2001.

Representation Theory Seminar, Northeastern University, January 1999.

Geometry Seminar, Boston University, January 1999.

Combinatorial Topology, Joint Mathematics Meeting in San Antonio TX, January 1999.

Colloquium, Topology/Combinatorics Seminar, George Washington University, November 1998.

Colloquium, University of North Carolina, Chapel-Hill, October 1998.

Algebraic Topology Seminar, University of Rutgers, April 1998.

Homotopy Theory in honor of J. Michael Boardman, Joint Mathematics Meeting, January 1998.

Activities

Organizer, Reclaiming da Vinci: Art Math Symposium, Williams, MA, March 2009.

Co-organizer, Math Art Labratory, A.P.E. Studios, Northampton, MA, October 2008.

Faculty advisor for REU *Discrete Geometry*, Williams College, Summer 2008.

Faculty advisor for REU *Particle Collisions*, Williams College, Summer 2007.

Faculty Program Director, Williams College, 2006-2009.

Invited speaker, *Spatial Data* Schloss Dagstuhl program, Saarbrücken Germany, March 2006.

New Topological Structures in Physics, MSRI program, Berkeley, January 2006.

Co-organizer, Hudson River Undergraduate Math Conference, Williams College, April 2005.

NSF *Mathematical Physical Sciences Theory* workshop, October 2004.

Faculty advisor for REU *Computational Cartography*, Williams College, Summer 2004.

Williams College Library and Chapin Library Committee, Fall 2003 - May 2005.

Hudson River Undergraduate Math Conference Steering Committee, Fall 2002 - May 2008.

Faculty advisor for REU *Configuration Spaces*, Williams College, Summer 2003.

Organizer, Topology Seminar, Ohio State University, academic year 2001-2002.

Member of the A.M.S. and the M.A.A.

Teaching

Williams College:

Mural — *Art Department* (Winter 2009)

Designing and Modeling Geometric Shapes — *Art Department* (Winter 2007)

Knot Theory (Fall 2004).

Linear Algebra (Fall 2004, Fall 2007).

Computational Geometry (Spring 2004, Spring 2007, Spring 2009).

Discrete Mathematics (Fall 2002, Spring 2003, Fall 2003, Spring 2004, Spring 2005).

Lessons in Go — *Asian Studies Department* (Winter 2004).

Differential Equations (Spring 2003, Spring 2005, Spring 2007, Spring 2008).

Multivariable Calculus (Fall 2008).

Geometric Group Theory (Fall 2002, Spring 2008).

Ohio State University:

Computational Geometry (Spring 2006).

Shape of Nature (Spring 2002): self-designed course for first-year undergraduates, involving faculty from Physics, Statistics, Chemistry (under the *Freshman Research Seminar* award).

Honors Accelerated Calculus with Analytic Geometry (Fall 2001).

Differential Equations and their Applications (Fall 1999, 2000, Winter 2000).

Discrete Math Modeling (Spring 2000, 2001): self-designed course for upper-level undergraduates, using *Graph Theory* by D. West.

Topics in Geometry (Summer 2001): self-designed course for first and second year graduate students, using *Differential Geometry of Curves and Surfaces* by M. do Carmo.

Topics in Topology (Summer 2000, 2001): self-designed course for first and second year graduate students, using *Introduction to Knot Theory* by R. Lickorish.

Topics in Mathematics – Geometry (Spring 2000, 2001): self-designed course for in-service high school teachers, using *The Knot Book* by C. Adams.

Topics in Mathematics – Probability (Summer 2000): self-designed course for in-service high school teachers, using *The Pleasures of Counting* by T. Körner.

Johns Hopkins University:

Pre-Calculus, Calculus: instructor (Spring 1999, Summer 1996-1998).

Introduction to Knots (Spring 1998): instructor, self-designed course for undergraduates, using *The Knot Book* by C. Adams (under the *Dean's Teaching Fellowship* award).

Summer Scholar Minority Program in Mathematics (Summer 1995): instructor for talented undergraduates, using *Principles of Mathematical Analysis* by W. Rudin.

Honors Supplement to Calculus (Fall 1995, Spring 1996): instructor, based on the Emerging Scholars Program at University of Texas, Austin.