

# Genevieve S. Walsh

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## Education and Degrees

- Ph.D. University of California at Davis, Mathematics. June 2003.  
Dissertation Advisor: W. P. Thurston.
- M.S. Auburn University, Mathematics. June 1997.  
Thesis Advisor: K. Kuperberg.
- Budapest Semesters in Mathematics. Fall 1994 and Spring 1995.
- B.A. Oberlin College, Mathematics with Honors. June 1994.

## Areas of Specialization

Geometric Topology, Hyperbolic Geometry

## Professional Affiliations

American Mathematical Society, Association of Women in Mathematics

## Awards and Fellowships

- Bernstein Faculty Fellow. Tufts University, 2007-2009.
- NSF VIGRE Postdoctoral Fellowship. University of Texas at Austin, 2003-2006.
- VIGRE Graduate Fellow. University of California at Davis, 2002-2003.
- Dissertation Year Fellow. University of California at Davis, 2001-2002.
- Alice Leung Scholarship. University of California at Davis. Spring 2000.

## Academic Positions

- Assistant Professor, Tufts University. Fall 2006-present. (on leave Fall 2006)
- Postdoctoral Researcher, Université du Québec à Montréal. Fall 2006.
- VIGRE Postdoctoral Instructor, University of Texas at Austin. Fall 2003-Spring 2006.
- Postdoctoral Associate, Cornell University. Summer 2003.

## Dissertation

- *Great circle links in the three-sphere*. June 2003. Advisor: W. P. Thurston.

## Publications and Submitted Papers

- *Commensurability classes of two-bridge knot complements*. Joint with Alan Reid. Submitted. arXiv:math.GT/0612473.
- *Incompressible surfaces and spinnormal form*. Submitted. arXiv:math.GT/050302.
- *Three-manifolds, virtual homology, and group determinants*. Joint with Daryl Cooper. **Geom. Topol.**, Vol. 10 (2006) 2247-2269. arXiv:math.GT/0603152.
- *Virtually Haken fillings and semi-bundles*. Joint with Daryl Cooper. **Geom. Topol.**, Vol. 10 (2006) 2237-2245. arXiv:math.GT/0407328.
- *Great circle links and virtually fibered knots*. **Topology**, Vol. 44 (2005), No. 5, pp. 947-958. arXiv:math.GT/0407361.
- *Double bubbles in the three-torus*. Joint with Miguel Carrión Álvarez, Joseph Corneli and Shabnam Beheshti. **Experiment. Math.**, Vol. 12 (2003), No. 1, pp. 79-89. arXiv:math.DG/0208120.

## Non-referreed

- *Surfaces in finite covers and the group determinant*. Part of the conference proceedings for *Low Dimensional Manifolds*. **Oberwolfach Reports** Vol. 2 (2005). (2 pages)

## Special Conference Talks

- August 2007. Teichmüller Theory and Kleinian Groups: “Connections for Women” Conference. MSRI, Berkeley, CA.
- August 2007. Geometric Group Theory: “Connections for Women” Conference. MSRI, Berkeley, CA.
- July 2007. “Three-manifold Geometry and Topology”. Warwick Mathematics Institute. Warwick, England.
- September 2006. The 2nd William Rowan Hamilton Geometry and Topology Workshop, “Surface Groups in Low Dimensional Topology and Geometric Group Theory”. Dublin, Ireland.
- July 2006. Institute for Advanced Study/ Park City Math Institute Workshop, “Low Dimensional Topology”. Park City, Utah.
- September 2005. Conference on Low-dimensional Manifolds. Oberwolfach, Germany.
- July 2005. “On Heegaard splittings of 3-manifolds” Conference. Technion, Haifa, Israel.
- March 2005. Spring Topology and Dynamical Systems Conference. (Semi-Plenary Talk) Berry College.
- May 2004. “Trends in three-manifolds” Conference. UQAM. Montreal, Canada.

- March 2004. Spring Topology and Dynamical Systems Conference. (Special Session Talk) UAB.
- October 2003. Texas Geometry and Topology Conference. Rice University.
- September 2003. “Topology in and around dimension three” Conference. Banff, Canada.
- June 2003. Georgia Topology Conference. University of Georgia.

## Seminar Talks

- November 2007. Williams College Colloquium.
- April 2007. Geometry/Topology Seminar, SUNY Buffalo.
- April 2007. Geometric Topology Seminar, Columbia University.
- April 2007. Topology and Geometric Group Theory Seminar, Cornell University.
- March 2007. Geometry and Topology Seminar, Brown University.
- February 2007. Topology Seminar, Brandeis University.
- February 2007. Geometric Topology Seminar, Boston College.
- November 2006. 3- and 4-Manifolds Seminar, Michigan State University (+ special RTG talk).
- October 2006. Cascade Topology Seminar, Portland State University.
- October 2006. Geometric Group Theory Seminar, McGill University.
- September 2006. Topology Seminar, Université du Québec à Montréal.
- April 2006. Topology Seminar, Rice University.
- December 2005. Topology Seminar, University of British Columbia.
- December 2004. Topology Seminar, Washington University in St. Louis.
- November 2004. Topology Seminar, University of California at Davis.
- April 2004. Topology Seminar, Tulane University.
- January 2004, May 2006. Topology Seminar, University of California at Santa Barbara.
- November 2003. Topology Seminar, Columbia University.
- November 2003. Topology Seminar, Princeton University.

## Math Society Meeting Talks

- May 2007. Special Session on Low-dimensional Topology, Joint meeting of the American Mathematical Society and the Sociedad Matemática Mexicana (SMM). Zacatecas, Mexico.
- September 2006. Special Session on Low-dimensional Topology, Joint Meeting of the Canadian Math Society and the Sociedad Matemática Mexicana (SMM). Guanajuato, Mexico.
- December 2005. Topology Session, Canadian Math Society Meeting, Victoria, B. C.
- April 2005. Special Session on Geometric Methods in Three Dimensions. University of California at Santa Barbara.
- October 2004. Special Session on Geometry of Hyperbolic Manifolds. Vanderbilt University.
- May 2004. Special Session on Low Dimensional Topology. Joint Meeting of the American Mathematical Society and the Sociedad Matemática Mexicana (SMM). Houston.
- January 2004. Special Session on Low Dimensional Topology. Phoenix, Arizona.
- October 2003. Special Session on Knots, Links, and Embedded Graphs. University of North Carolina at Chapel Hill.

## General Math Audience Talks

- Millican colloquium talk: “Which three-manifold is the universe?”, University of North Texas, May 2005.

## Teaching Experience

- Assistant Professor, Tufts University:  
Linear Algebra 26 (Spring 2006), Geometry and Topology 217 (Fall 2007), Calculus 12 (Fall 2007).
- Instructor, University of Texas at Austin:  
Single and Multi-variable Calculus, Number Theory (Discovery Learning Style), Individual reading course on “Knots, links and three-manifolds”, Graduate Topics Course: “Surfaces in three-manifolds”.
- Associate Instructor and Teaching Assistant, University of California at Davis:  
Single and Multi-variable Calculus, Linear Algebra, Topology, Real Analysis.

## Service

- Co-organizer of special AMS conference “Teichmüller Theory and Low-dimensional Topology, Snowbird Utah June 2008. (subject to funding)
- Co-organizer of special session “Geometric Topology/Geometric Group theory” at the 2007 Spring Topology and Dynamical Systems Conference, University of Missouri Rolla.
- Co-organizer of Geometric Group Theory and Topology Seminar, Tufts University, Spring 2007 - present.

- Tufts Departmental and University Committees:  
 Member, Undergraduate Mathematics Committee, Spring 2007.  
 Member, Hiring Committee, Academic Year 2007-2008.  
 Member, Committee on Information Technology, 2007-2008.  
 Member, Publicity Committee, 2007-2008.  
 Member, Thesis Committee for Maggie LaPlante, Fall 2007.
- Served on the VIGRE Graduate Management Team. 2004-2005, University of Texas at Austin.
- Referee for: **Algebr. Geom. Topol.**, **Amer. Math. Monthly**, **J. London Math. Soc.**
- Reviewer for Math Reviews.
- Indexed **The Geometry and Topology of Three-Manifolds**, W. P. Thurston's Princeton course notes.