

Education

- 2003-2009 **University of California, Santa Barbara.**
- 2009 Ph.D., Mathematics (expected Spring 2010)
 - dissertation: *Ricci Flow on Manifolds with Circle Action*
 - advisor: David R. Morrison
 - 2004 M.A., Mathematics
- 2000-2003 **University of Pittsburgh.**
- 2003 B.S., Mathematics and Physics
 - Double Major, Graduated Cum Laude with Departmental Honors in Physics
- 1999-2000 **University of Rochester.**
- Dean's List recipient

Teaching Experience

- 2009-2010 **Assistant Professor**, *Penn State Altoona.*
Full-time teaching load including:
- Algebra, Trigonometry, and Analytic Geometry (Pre-Calculus) (Fall 2009, Spring 2010)
 - College Algebra (Spring 2010)
 - Introductory Statistics (Summer 2010)
- 2004-2009 **Instructor**, *University of California, Santa Barbara.*
Duties included giving lectures, preparing course materials, writing and grading exams, quizzes, and homework assignments, supervising graders and TA's. Courses included:
- Vector Calculus with Applications II (Summer 2008, 2009)
 - Differential Equations and Linear Algebra II (Summer 2005, 2007)
 - Calculus with Applications II (Summer 2006)
 - Calculus for Social and Life Sciences I (Summer 2004)
- 2003-2009 **Teaching Assistant**, *University of California, Santa Barbara.*
Led weekly discussion sections, administered quizzes, held office hours, assisted in grading quizzes, homework, and exams, supervised TA's (as Head TA). Courses included:
- Calculus with Applications I, II
 - Differential Equations and Linear Algebra I, II
 - Vector Calculus with Applications I
 - Transition to Higher Mathematics
 - Introduction to Real Analysis II
 - Introduction to Topology
- 2009 **MathLab Coordinator**, *University of California, Santa Barbara.*
Ran a drop-in tutoring lab, managed scheduling, held tutoring sessions for all upper and lower division undergraduate classes, managed 25 teaching assistants
- 2005-2006 **Grader**, *University of California, Santa Barbara.*
- Topology, Real Analysis, Differential Geometry

More →

Honors and Distinctions

Awards and Scholarships

- 2009 **Departmental Research Fellowship**, Awarded by the University of California, Santa Barbara, Department of Mathematics.
- 2004-2009 **Departmental Fee Fellowship**, Awarded by the University of California, Santa Barbara, Department of Mathematics.
- 2004 **Raymond A. Wilder Award**, Awarded by the University of California, Santa Barbara, Department of Mathematics.
- Outstanding First Year Mathematics Graduate Student
- 2003 **Departmental Honors in Physics**, University of Pittsburgh.
- 1999-2000 **Rush Rhees Scholarship**, Awarded by the University of Rochester.

Publications

- 2009 "Ricci Flow on Manifolds with Circle Action" In Preparation

Talks

- 2009 "An Introduction to the Poincaré Conjecture and its Proof" - Franklin & Marshall College
- 2009 "Ricci Flow on Manifolds with Boundary/Applications" - Western Kentucky University
- 2007 "Ricci Flow of a Class of Metrics on $T^2 \times I$ " - University of California, Santa Barbara
- 2006 "Introduction to Clifford Algebras" Graduate Student Seminar - University of California, Santa Barbara
- 2004 "The Twin Paradox Revisited" Graduate Student Seminar - University of California, Santa Barbara
- 2002 "Studying Surface Turbulence Using Photon Correlation Spectroscopy" University of Pittsburgh Undergraduate Research Conference

Relevant Experience

Coursework

- 2003-2008 **Graduate Physics Coursework**, *University of California, Santa Barbara*.
Took a number of graduate physics courses including:
- Classical Mechanics, Electromagnetism, Statistical Mechanics, Quantum Mechanics, General Relativity, Relativistic Quantum Field Theory, String Theory

Software Development

- 2006 **WeBWork Development**.
- Freelance work for Pearson Education/Addison-Wesley creating and coding WeBWork problems to be distributed with textbooks
 - Worked for UCSB Math Dept. developing WeBWork problems for several courses

Undergraduate Research

- 2002 **Research Assistant**, *University of Pittsburgh*, under Walter Goldberg.
- Studied the motion of particles on the surface of turbulent water using photon correlation spectroscopy and presented my findings at a undergraduate research conference

Professional Memberships

- 2003-Present **American Mathematical Society**.