

Contact Information

Address: Department of Mathematics
University of Michigan
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Education

2004-present **University of Michigan**
Ph.D. in Mathematics (*in progress*)
Advisor: Ralf Spatzier

2000-2004 **Eastern Nazarene College**
B.S. in Mathematics
B.S. in Physics
graduated *Summa Cum Laude*

Research

- **Current Research Interests:** Riemannian geometry, dynamics, rigidity, homogeneous dynamics, Lie groups, symmetric spaces
- **Summer 2003 REU, Temple University:** Program in representation theory. Advisor: Ed Letzter
- **Summer 2001 and 2002 REU, Harvard University:** Materials science, superconductivity. Advisors: Michael Tinkham and Nina Markovic

Publications

1. *2-Frame flow dynamics and hyperbolic rank rigidity in nonpositive curvature*, (19 pages) (*submitted*).

2. *Lengths of finite dimensional representations of PBW algebras*, with M. Darnall, *Linear Algebra and its Applications* 395 (2005) 175-181.

Professional Activities

Selected Conferences Attended:

- *Geometry, Rigidity and Group Actions: In Honor Of Robert J. Zimmer's 60th Birthday* University of Chicago, Sept. 7-9, 2007
- *Clay Summer School on Homogeneous Flows, Moduli Spaces and Arithmetic* Pisa, Italy, June 11 - July 6 2007
- *Geometry, Topology and Their Interactions* Morelia, Mexico, Jan. 8-13, 2007
- *Workshop in Dynamical Systems* Penn State University, Nov. 2-5, 2006
- *Future Directions in Riemannian Geometry* University of Maryland, Sept. 22-24, 2006
- *International Conference on Global Dynamics Beyond Uniform Hyperbolicity* Northwestern University, May 17-22, 2006
- *Bloomington Geometry Workshop* Indiana University, April 7-9, 2006

Memberships:

- American Mathematical Society, 2005-present

Invited Talks:

- Northwestern University Dynamical Systems Seminar, Nov. 27, 2007
- University of Chicago Dynamics Seminar, Oct. 31, 2007
- Special Session in Differential Geometry and Its Applications, AMS Sectional Meeting (Chicago, IL), Oct. 6 2007
- Ohio State University Geometric Group Theory Seminar, May 9, 2007

- Oklahoma University Geometry and Topology Seminar, April 18, 2007
- Special Session in Metric Geometry, Joint AMS-MMS Meeting (Zacatecas, Mexico) May 23-26, 2007
- Special Session in Geometric Topology, AMS Sectional Meeting (Oxford, OH), Mar. 17, 2007
- University of Michigan Geometry Seminar, Mar. 13, 2007
- Indiana University Differential Geometry Seminar, Feb. 15, 2007

Honors and Awards

- National Science Foundation Graduate Research Fellowship, 2004-present
- Alice Webber Glover in Math Scholarship, University of Michigan, Summer 2006
- President's Scholarship, Eastern Nazarene College, 2000-2004

Teaching Experience

University of Michigan:

- Calculus I, Fall 2005
- Calculus II, Winter 2006
- Assistant Course Coordinator, PreCalculus, Fall 2007