

## Curriculum Vitae

### Benjamin Schmidt

**Address:** Department of Mathematics  
Michigan State University  
East Lansing, MI 48824

Office: A-207 Wells Hall  
Email: [schmidt@math.msu.edu](mailto:schmidt@math.msu.edu)  
Phone: (517) 432-8429

**Education:** 1996-2000: B.S./M.S. in mathematics, summa cum laude,  
Emory University. Advisor: Eric Brussel.

2000-2006: PhD in mathematics, University of Michigan,  
Advisor: Ralf Spatzier.

2006-2009: N.S.F. Postdoctoral Fellow/Dickson Instructor,  
University of Chicago, Sponsor: Benson Farb.

**Honors:** 1998: Trevor Evans Award, Emory University

2006: Clay Liftoff Fellow

2006-2009: NSF Postdoctoral Fellow

2009-2012: NSF research grant DMS-0905906

**Interests:** Geometry: nonpositive curvature, locally symmetric spaces,  
geodesics.

Dynamics: hyperbolic dynamics, geodesic flows, large group  
actions.

**Writings:**

Published (mostly available on webpage):

- Weakly hyperbolic actions of Kazhdan groups on tori. *Geometric and Functional Analysis*, **16** (2006), no. 5, 1139-1156.
- (Joint with J.-F. Lafont) Simplicial volume of closed locally symmetric spaces of noncompact type. *Acta Mathematica*, **197** (2006), no.1, 129-143.
- (Joint with J.-F. Lafont) On submanifolds in locally symmetric spaces of non-compact type. *Algebraic and Geometric Topology*, **6** (2006), 2455-2472.
- (Joint with J.-F. Lafont) Blocking light in compact Riemannian manifolds. *Geometry & Topology*, **11** (2007), 867-887.
- Blocking light in closed Riemannian manifolds, Guido's Book of Conjectures, Monographie de L'Enseignement Mathematique, 40 (2008), pgs. 165-167.
- (Joint with A. Pelayo) Maximal ball packings of symplectic-toric manifolds. *International Mathematics Research Notices* (2008), no. 3.
- (Joint with I. Biringer) The three gap theorem and Riemannian geometry. *Geometria Dedicata*, **136** (2008), no. 1, 175-190.
- (Joint with J. Souto) A characterization of round spheres in terms of blocking light. *Commentarii Mathematici Helvetici*, **85** (2010), 259-271.
- Spherical Points in Riemannian manifolds. Accepted in PAMS (2010)

Submitted (available on webpage):

- Positively curved manifolds with large conjugate radius. Submitted. (2010)
- ( Joint with Craig Sutton) Two remarks on the length spectrum of a Riemannian manifold. Submitted. (2010)

Preprints (available by request):

- (Joint with K. Burns) On the singularities and radial injectivity of Riemannian exponential maps.
- (Joint with K. Burns) CROSS blocked manifolds are Blaschke.
- (Joint with K. Burns) Closed geodesics without proper chords.

## **Invited Lectures:**

### **2003:**

- Workshop on Robustness and Partial Hyperbolicity, IMPA

### **2004:**

- University of Michigan, Open Problem Seminar

### **2005:**

- University of Michigan, Geometry Seminar
- AMS special session, Texas Tech University
- CUNY Graduate Center, Differential Geometry and Lie Theory Seminar
- Binghamton University, Geometry and Topology Seminar
- Caltech, Geometry and Topology Seminar
- Colorado College, 22<sup>nd</sup> Geometric Topology Workshop
- BIRS, “Group Actions, Rigidity, and Dynamics”
- Ohio State University, Topology Seminar
- Ohio State University, Dynamics Seminar
- Indiana University, Dynamical Systems Seminar
- Indiana University, Geometry Seminar

### **2006:**

- Bloomington Geometry Workshop
- Beyond Partial Hyperbolicity Conference, Chicago
- University of Oklahoma, Geometry and Topology Seminar
- Geometric Groups on the Gulf Conference
- University of Chicago, Geometry and Topology Seminar
- University of Illinois Urbana-Champaign, Topology Seminar
- Wasatch Topology Conference
- Northwestern University, Dynamics Seminar
- Miami University of Ohio, Topology Seminar

### **2007:**

- University of Illinois Chicago, Geometry/Topology/Dynamics Seminar
- ETH, Geometry Seminar
- Geometry, Topology, and their Interactions Conference, Morelia, UNAM
- AMS special session, Miami University
- University of Michigan, Geometry Seminar

### **2008:**

- AMS special session, Chicago
- University of Michigan, Geometric Function Theory Seminar
- University of Binghamton, Topology Seminar
- AMS special session, Bloomington Indiana
- Stanford University, Geometry Seminar

- Ohio State University, Topology Seminar
- University of Illinois Chicago, Geometry/Topology/Dynamics Seminar
- Yale University, Dynamics of Group Actions Seminar
- Tulane University, Colloquium
- Rice University, Colloquium
- Michigan State, University Colloquium

**2009:**

- Ohio State University, Colloquium
- Oaxaca, UNAM, Topology Seminar
- Bowling Green State University, Colloquium
- Notre Dame, Geometry Seminar
- Penn State University Colloquium
- Boston College, Colloquium
- University of Illinois Urbana-Champaign, Colloquium
- University of Alabama, Colloquium
- University of Michigan, Geometry Seminar
- AMS special session, Waco TX
- Oaxaca, UNAM, Geometry/Topology Conference

**2010:**

- Joint AMS, MAA special session, San Francisco, CA
- Dartmouth University, Geometry Seminar and Colloquium
- Midwest Graduate Student Geometry/Topology Conference, Open Problems Speaker
- International Conference on Geodesics at Chern Institute of Math, Tianjing

**Longer Visits:**

- IHES, 1 month in 2010

**Service and Outreach:**

- Summer Honors Mathematics Advisor, University of Michigan, 2002 and 2003
- KCP host (outreach program with Detroit junior high school students), 2005
- Dynamics seminar organizer, University of Chicago, 2007 and 2008
- Taught mini-course with emphasis on open problems for University of Chicago REU program, 2008
- Geometric Analysis seminar organizer, Michigan State University, 2010-
- Colloquium Committee, MSU 2010-2011
- Referee for *Geometry and Topology*, *Journal of Modern Dynamics*, *Pacific Journal of Mathematics*, and *Proceedings of the AMS*