

Curriculum Vitae

Jesse Ratzkin
Department of Mathematics, University of Georgia
Boyd Graduate Research Tower
Athens, GA 30602
Phone: (706) 542-2644, Fax: (706) 542-5907
e-mail: jratzkin@math.uga.edu
Webpage: <http://www.math.uga.edu/~jratzkin>

Education

- B.A., University of California at Berkeley, May 1995
 - Ph.D., University of Washington, August 2001
 - Thesis title: An End to End Gluing Construction for Surfaces of Constant Mean Curvature
 - Thesis Advisor: Daniel Pollack
-

Research Interests: Geometric Analysis, Riemannian Geometry

Employment:

- Temporary Assistant Professor, University of Georgia, August 2007–present
 - Postdoctoral Fellow, University of Connecticut, August 2004–May 2007
 - VIGRE Instructor, University of Utah: August 2001–May 2004
-

Honors and Awards: VIGRE fellow, January–June 2001

Publications:

- A Payne–Weinberger estimate for wedge domains on spheres (joint with A. Treibergs) preprint.
 - Coplanar, genus zero, constant mean curvature surfaces are nondegenerate (joint with K. Grosse-Brauckmann, N. Korevaar, R. Kusner, and J. Sullivan), preprint.
 - A capture problem in Brownian motion and eigenvalues of spherical domains (joint with A. Treibergs), to appear in *Trans. Amer. Math. Soc.*
 - On the Nondegeneracy of Constant Mean Curvature Surfaces (joint with N. Korevaar and R. Kusner), *Geom. Funct. Anal.* 16:891–923, 2006
 - An End to End Gluing Construction for Metrics of Constant Positive Scalar Curvature. *Indiana Univ. J. Math.* 52:703–726, 2003.
-

Selected Invited Lectures

- 18th Southeast Geometry Conference, March 2008
- Lehigh University Geometry and Topology Conference, October 2007

- Oberwolfach workshop, Progress in Surface Theory, May 2007
- Differential Geometry seminar, CUNY, October 2006
- Differential Geometry Seminar, MIT, April 2006
- Valley Geometry Seminar, February 2006

Teaching Experience

- Classes taught at the University of Georgia: multivariable calculus (spring 2008), foundations in geometry (spring 2008), single-variable calculus (fall 2007), abstract algebra (undergraduate, fall 2007)
- Classes taught at the University of Connecticut: single-variable calculus (fall 2004, fall 2006), geometry (fall 2004, spring 2005), multi-variable calculus (spring 2005, fall 2005, fall 2006), ordinary differential equations (spring 2006, spring 2007), complex analysis (spring 2006), writing in mathematics (spring 2007)
- Classes taught at the University of Utah: partial differential equations for engineers (fall 2003), topics in Riemannian geometry: the Yamabe problem (spring 2003), trigonometry (fall 2002), linear algebra (spring 2002), ordinary differential equations (fall 2001, spring 2004)
- Classes taught at the University of Washington: multivariable calculus (summer 2000, spring 1999), ordinary differential equations (summer 1999), first year calculus (summer 1997), remedial algebra (winter 1997)
- I have also assisted in teaching classes ranging from freshman calculus to graduate geometry and topology, led discussion sections, staffed drop-in tutoring centers, and graded for a variety of courses.

Other Activities:

- referee for *Inventiones Mathematicae*, *Experimental Mathematics*
- reviewer for *Math Reviews*
- co-organizer for a special session in the fall 2006 AMS northeastern sectional meeting
- organizer of research level Geometry seminar, U. Georgia, January 2008-present
- co-organizer of research level Geometry seminar at U. Connecticut, September 2004–May 2007
- organizer for the spring 2004 meeting of the Pacific Northwest Geometry Seminar
- co-organizer of research level PDE/Differential Geometry seminar at U. Utah, August 2003–May 2004
- assisted with a VIGRE Minicourse in nonlinear wave phenomena, August 2003
- led a series of three lectures in Math Circle, a high school outreach program, April 2003
- assisted with the Math Circle program, September 2002–May 2004
- faculty advisor for the graduate student geometry seminar, August–December, 2002
- assisted with a VIGRE Minicourse in variation methods and nonlinear PDE, particularly in organizing a series of lectures on minimal surfaces, May 2002
- organizer of graduate student geometry seminar, 1998–2000