Ian Biringer
Department of Mathematics
Yale University
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Positions held

August 2009 - present Yale University
 Gibbs Assistant Professor, NSF Postdoctoral Fellow

Degrees and Academic Experience

June 2009 University of Chicago
 PhD - Mathematics
 Thesis: *Algebra vs. geometry in hyperbolic 3-manifolds*

June 2005 University of Chicago
 Master of Sciences - Mathematics

May 2004 Oberlin College
 Bachelor of Arts - Mathematics with Highest Honors

May 2004 Oberlin College
 Bachelor of Arts - Computer Science

June-July 2003 Oregon State University
 Research Experiences for Undergraduates

Honors

January 2009 NSF Postdoctoral Fellowship

March 2008 Graves Teaching Prize
 University of Chicago

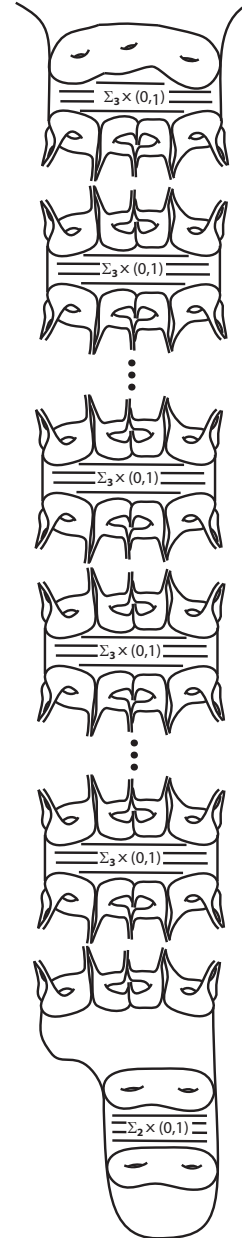*May 2004* Rebecca Cary Orr Memorial Prize in Mathematics

2003-2004 Barry M. Goldwater Scholarship
 Oberlin College

Seminar Talks

2008 University of Chicago, Yale University, Princeton University,
 Brown University, University of Michigan.

2009 University of Texas at Austin, University of Utah,
 Ohio State University, University of Illinois at Chicago,
 Université Paul Sabatier, College International of Budapest.

2010 Temple University, Pennsylvania State University, University of Maryland,
 California Institute of Technology, City University of New York, Brown University.

2011 Yale University, University of Michigan, Purdue University,
Tufts University, Harvard University, Université Paul Sabatier.

Conference Talks

2008 Ahlfors-Bers Colloquium
Rutgers University, Newark.

2009 Wasatch Topology Conference.

2009 AMS sectional meeting at San Francisco State University

2010 *Geometry and Topology of Character Varieties*
National University of Singapore

2010 AMS sectional meeting at the University of Albuquerque

2010 *Character varieties in the geometry and topology of low dimensional manifolds*
Banff International Research Station

2011 *Filling invariants and asymptotic geometry*
University of Indiana

2011 FRG Workshop organized by Toby Colding, Bill Minicozzi and Dave Gabai
Princeton University

2011 L^2-*invariants and their relatives for finitely generated groups*
AIM Workshop

2011 Wasatch Topology Conference.

Papers

- *Algebra versus geometry in hyperbolic* 3-*manifolds,*
  Ph.D. Thesis - The University of Chicago (2009).
  http://users.math.yale.edu/∼ib93/thesis.pdf.

- *Geometry and rank of fibered hyperbolic* 3-*manifolds,*
  Algebr. Geom. Topol. 9 (2009), no. 1, 277-292.
  preprint at http://arxiv.org/abs/0803.1253.

- *Algebraic and geometric convergence of discrete representations into* $\mathrm{PSL}_2\,\mathbb{C}$,
  with Juan Souto. Geometry and Topology 14 (2010), no. 4, 2431-2477.
  preprint at http://arxiv.org/abs/1010.0459.

- *A finiteness theorem for hyperbolic* 3-*manifolds,*
  with Juan Souto. Journal of the London Mathematical Society (2011).
  preprint at http://arxiv.org/abs/0901.0300.

- *The three gap theorem and Riemannian geometry,*
  with Benjamin Schmidt. Geometriae Dedicata, vol. 136 (2008), 175-190.
  preprint at http://arxiv.org/abs/0803.1250.

- *On the growth of Betti numbers of locally symmetric spaces,*
  with M. Abert, N. Bergeron, T. Gelander, N. Nikolov, J. Raimbault and I. Samet.

Comptes Rendus Mathematique, vol 349, Issues 15-16 (2011), 831-835.
preprint at http://arxiv.org/abs/1104.5559.

- *Extending pseudo-Anosov maps to compression bodies,*
  with Jesse Johnson and Yair Minsky. (submitted)
  preprint at http://arxiv.org/abs/1011.0021.

- *Intersection growth in groups,*
  with Khalid Bou-Rabee, Martin Kassabov and Francesco Matucci. (in preparation)

- *Rank and topology of closed hyperbolic 3-manifolds,*
  with Juan Souto. (in preparation)

- *Extension into handlebodies and limits of Kleinian groups,*
  with Cyril Lecuire. (in preparation)

Teaching experience

Aug 2009 - present   Gibbs Assistant Professor at Yale University
(Honors linear algebra and multivariable calculus, Graduate algebraic topology)

Sep 2006 - June 2009   Instructor at the University of Chicago
(IBL honors calculus, Multivariable calculus and linear algebra, IBL geometric group theory)

Sep 2006 - Dec 2008   Mentor, University of Chicago - DRP
(Directed reading program for undergraduates in mathematics)

Summers 2006-2008   Mentor, University of Chicago - REU
(Research experiences for undergraduates in mathematics)

June 2008 - Aug 2008 Instructor, CAAP
(Chicago Academic Achievement Program - Precalculus)

Oct 2005 - June 2006 College Fellow at the University of Chicago
(Teaching assistant for IBL honors calculus)

June 2002 - Aug 2002 Tutor at UW-Fox Valley.

Jan 2001 - May 2004 Grader and Assistant at Oberlin College

Personal information

My birthdate is September 16, 1982. I am a US citizen.

References

Juan Souto (PhD advisor)
University of Michigan
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Benson Farb (secondary PhD advisor)
University of Chicago
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Yair Minsky (NSF postdoctoral mentor)
Yale University
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Richard Canary
University of Michigan
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Jeffrey Brock
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Alan Reid
University of Texas at Austin
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Diane Herrmann (teaching reference)
University of Chicago
diane@math.uchicago.edu

Roger Howe (teaching reference)
Yale University
roger.howe@yale.edu

November, 2011