

Micah B. Milinovich

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Personal

US Citizen (Born: Sauk County, Wisconsin USA).

Education

May 2008 **PhD in Mathematics**, University of Rochester, Adviser: Steven M. Gonek.

May 2001 **BA in Mathematics**, *summa cum laude*, University of Rochester.

Employment

2014–present **Associate Professor**, Department of Mathematics, University of Mississippi.

2008–2014 **Assistant Professor**, Department of Mathematics, University of Mississippi.

Publications

14. A note on the zeros of zeta and L -functions.
with E. Carneiro and V. Chandee, *Mathematische Zeitschrift*, to appear.
13. Hilbert spaces and the pair correlation of zeros of the Riemann zeta-function.
with E. Carneiro, V. Chandee, F. Littmann, *J. Reine Angew. Math. (Crelle's J.)*, to appear.
12. A hybrid Euler-Hadamard product and moments of $\zeta'(\rho)$.
with H. M. Bui and S. M. Gonek, *Forum Math.*, to appear.
11. Simple zeros of modular L -functions.
with N. Ng, *Proc. London Math. Soc.*, **109** (2014), no. 6, 1465–1506.
10. Lower bounds for moments of $\zeta'(\rho)$.
with N. Ng, *Int. Math. Res. Notices*, (2014), no. 12, 3190–3216.
9. Moments of products of automorphic L -functions.
with C. L. Turnage-Butterbaugh, *J. Number Theory*, **139** (2014), 175–204.
8. On Balazard, Saias, and Yor's equivalence to the Riemann Hypothesis.
with H. M. Bui and S. J. Lester, *J. Math. Anal. Appl.*, **409** (2014), no. 1, 244–253.
7. Bounding $S(t)$ and $S_1(t)$ on the Riemann hypothesis.
with E. Carneiro and V. Chandee, *Mathematische Annalen*, **356** (2013), no. 3, 939–968.
6. A note on simple a -points of L -functions.
with S. J. Lester and S. M. Gonek, *Proc. Amer. Math. Soc.*, **140** (2012), no. 12, 4097–4103.
5. A note on a conjecture of Gonek.
with N. Ng, *Funct. Approx. Comment. Math.*, **46** (2012), no. 2, 177–187.
4. Moments of the Riemann zeta-function at its relative extrema on the critical line.
Bull. London Math. Soc., **43** (2011), no. 6, pp. 1119–1129.

3. Central values of derivatives of Dirichlet L-functions.
with H. M. Bui, *Int. J. Number Theory*, **7** (2011), no. 2, pp. 371–388.
2. A note on the gaps between consecutive zeros of the Riemann zeta-function.
with H. M. Bui and N. Ng, *Proc. Amer. Math. Soc.*, **138** (2010), no. 12, pp. 4167–4175.
1. Upper bounds for moments of $\zeta'(\rho)$.
Bull. London Math. Soc., **42** (2010), no. 1, pp. 28–44.

Research Funding & Awards

- 2015–2017 **NSA Young Investigator Grant H98230-15-1-0231**, \$40,000.
- 2013–2015 **NSA Young Investigator Grant H98230-13-1-0217**, \$40,000.
- 2015 **Research in Teams at BIRS**, co-PI with Andrew Booker and Nathan Ng.
- 2014 **SEC Faculty Travel Grant**, hosted by University of Georgia.
- 2011–2013 **AMS–Simons Travel Grant**.
- 2012–2013 **MRC Collaboration Grant**, co-PI with Maksym Radziwiłł. Sponsored by AMS/NSF.
- 2009–2012 **University of Mississippi College of Liberal Arts Summer Research Grant**,
Awarded every year eligible: 2009, 2010 & 2012.
- 2007–2008 **Supported by NSF grant DMS 0653809**, PI: Steven M. Gonek.
- 2005–2007 **Supported by NSF FRG grant DMS 0244660**.
PIs: David W. Farmer, Hugh L. Montgomery, and Steven M. Gonek
- 2001 **Arthur Gale Award**, Department of Mathematics, University of Rochester.
Most outstanding graduating senior in mathematics
- 2000 **Phi Beta Kappa**, junior year inductee.
- 1997–2001 **Rush Rhees Scholarship**, University of Rochester.
- 1997–2001 **Bausch & Lomb Scholarship**, University of Rochester.

Invited Research Visits

- ◇ ICERM Workshop: Computational Aspects of L -functions, Nov. 2015 (upcoming).
- ◇ IMPA, Rio de Janeiro, Brazil, two occasions: Aug. 2013 & June 2015 (upcoming).
- ◇ Banff International Research Station, Research in Teams (tentative): May 2015.
- ◇ AIM Workshop: Bounded gaps between primes, Palo Alto, CA, Nov. 2014.
- ◇ Department of Mathematics, University of Bristol, May 2014.
- ◇ Department of Mathematics, University of Georgia, April 2014.
- ◇ CRM, Université de Montréal, two occasions: Nov. 2012 & July 2013.
- ◇ Institut für Mathematik, Universität Zürich, May 2012.
- ◇ Department of Mathematics & Computer Science, University of Lethbridge.
Multiple occasions: June 2009, March 2010 & June 2012.
- ◇ Department of Mathematics, University of Rochester, Summer 2009.
- ◇ Department of Mathematics, University of Ottawa, November 2006.
- ◇ Isaac Newton Institute, University of Cambridge, April, June & July 2004.
Long-stay participant for the programme: *Random Matrix approaches in Number Theory*.

Conferences Organized

- Mar. 2013 **Modern Methods in Analytic Number Theory.**
Special session: AMS Southeastern Sectional Meeting, Oxford, MS.
Co-organized with Nathan Jones and Frank Thorne.
- Jan. 2012 **New Perspectives in Multiplicative Number Theory.**
Special session: AMS-MAA Joint Meetings, Boston, MA.
Co-organized with Leo Goldmakher, Jonathan Kish, and Paul Pollack.

Selected Research Talks

- Fall 2015 *Number Theory Seminar*, University of Illinois at Chicago (tentative).
- June 2015 *International Conference in Number Theory & Physics*, invited speaker.
IMPA, Rio de Janeiro, Brazil (upcoming)
- March 2015 *Number Theory and Representation Theory Seminar*, University of Missouri, Columbia.
- Jan. 2015 *Department of Mathematics Colloquium*, University of Rochester.
- June 2014 *Conference in memory of the Batemans and Heini Halberstam*, University of Illinois.
- May 2014 *Heilbronn Seminar*, University of Bristol.
- April 2014 *Number Theory Seminar*, University of Georgia.
- Feb. 2014 *Number Theory Seminar*, Ohio State University.
- Aug. 2013 *Analysis Seminar*, IMPA, Rio de Janeiro, Brazil.
- Nov. 2012 *Québec-Vermont Number Theory Seminar*, Concordia University (90 minute talk).
- Oct. 2012 *Number Theory Seminar*, Ohio State University.
- Sept. 2012 *Special session on Analytic Number Theory*, invited speaker.
Fall Eastern AMS Sectional Meeting, RIT University.
- June 2012 *Canadian Number Theory Association XII Meeting*, University of Lethbridge.
- July 2011 *The Pretentious View of Analytic Number Theory.*
AMS Mathematics Research Community, Snowbird Resort, Utah.
- June 2011 *Analytic Aspects of L-functions and Applications to Number Theory.*
University of Calgary
- Feb. 2011 *Palemetto Number Theory Series XV*, Clemson University.
- May 2010 *Illinois Number Theory Conference 2010*, University of Illinois.
- Mar. 2010 *Mathematics & Computer Science Colloquium*, University of Lethbridge.
- Mar. 2010 *Number Theory & Combinatorics Seminar*, University of Lethbridge.
- Feb. 2010 *Palemetto Number Theory Series XII*, Clemson University.
- Nov. 2009 *RH Day presentation*, University of Mississippi.
Organized by the American Institute of Mathematics.
- July 2009 *Mathematics & Computer Science Colloquium*, University of Lethbridge.
- Mar. 2009 *Ergodic & Number Theory Seminar*, University of Memphis.
- Oct. 2008 *Number Theory Seminar*, Texas A&M University.
- Sept. 2007 *Maine/Québec Number Theory Conference*, University of Maine.
- May 2007 *Number Theory Fest*, University of Illinois.

Nov. 2006 *Carleton-Ottawa Number Theory Seminar*, University of Ottawa.

Graduate Student Supervision

MS theses: **Michael Azlin**, MS in Mathematics, May 2011 (co-supervised with Nathan Jones).

◇ *Current position*: Mathematics Instructor, University of Mississippi.

Zhenchao Ge, MS in Mathematics, *expected* in May 2015.

◇ *Current position*: Ph.D. student, Department of Mathematics, University of Mississippi.

PhD theses: **Caroline L. Turnage-Butterbaugh**, PhD in Mathematics, May 2014.

◇ *Current position*: William W. Elliott Research Assistant Professor, Duke University, 2015 – 2018

◇ GAANN fellow, Class Marshal, and recipient of a Graduate Student Achievement Award.

◇ Undergraduate Research Mentor, SMALL program, Williams College, Summers 2014 & 2015.

◇ Postdoctoral Fellow, North Dakota State University, Fall 2014 – Spring 2015.

Teaching Experience

2008–present **University of Mississippi** (two courses per semester).

◇ Calculus sequence (including Honors College sections).

◇ Math 459 – Introduction to Complex Analysis (undergraduate).

◇ Math 513 – Theory of Numbers, I (undergraduate/Master’s level).

◇ Math 514 – Theory of Numbers, II (undergraduate/Master’s level).

◇ Math 625 – Abstract Algebra, I (graduate).

◇ Math 626 – Abstract Algebra, II (graduate).

◇ Math 655 – Theory of Functions of a Complex Variable, I (graduate).

◇ Math 656 – Theory of Functions of a Complex Variable, II (graduate).

◇ Math 597/697/797 – Reading courses in Number Theory.

2004–2005 **University of Rochester**, Department of Mathematics.

◇ Math 142 & Math 161 – Calculus, I & II

01/2003 – **Oliver Wendall Holmes M.S. (IS 204)**, Long Island City, Queens, NY.

06/2003 ◇ Mathematics Instructor: Title I (Improving the Academic Achievement of the Disadvantaged).

Summer **University of Rochester**, Office of Minority Student Affairs.

2002 ◇ Head Mathematics Instructor for the Early Connection Opportunity Program, a summer program for incoming freshman (especially first generation college students).

Service to the Profession

2003-present Member of the American Mathematical Society (AMS).

Referee: Proceedings of the London Mathematical Society, Algebra & Number Theory, Proceedings of the American Mathematical Society, Bulletin of the London Mathematical Society, Proceedings of the Royal Society A, Acta Arithmetica, Journal of Number Theory,* International Journal of Number Theory,* Journal de théorie des nombres de Bordeaux, Mathematics of Computation, Journal of Mathematical Analysis and Applications,* Central European Journal of Mathematics, American Mathematical Monthly, Annales Polonici Mathematici, Nonlinear Analysis Series B.

★ multiple articles

Reviewer: Mathematical Reviews (MathSciNet).

Reviewer: Grant proposal, Academic Research Fund, Ministry of Education, Singapore.

Service to the University

- 2008–present Co-organizer: Ole Miss Algebra & Number Theory Seminar.
2009–2011 Co-organizer and exam writer: Ole Miss High School Math Contest.
2009–2011 Member of Ole Miss Department of Mathematics PhD procedure committee.
2011–present Member of Ole Miss Department of Mathematics awards committee.
2010–present Undergraduate advising.
2013–present Member of the University of Mississippi ALLIES program.
Hiring Committee, Two occasions: 2014-2015 chair, 2013-2014 member.
Fall 2014 Interim Faculty Advisor for University of Mississippi AMS Grad Student Chapter.
MS oral defense committee member: Mary Margaret Boudreaux, Brenda Canoy, Daniel Chaussé, Travis Dirlé, Brad Farrow, Paige Gillentine, Milisha Hart, Cody Harville, Jim Henegan, Robert Henry, Kelvin Holmes, Thomas Koslowski, Wei Liao, Janet Nakarmi, Julie Riales, Xiaoming Xu, Liangyu Yao (mathematics).
MS thesis defense committee member: Mike Azlin, Lisa Ewell (mathematics).
PhD & Prospectus exam committee: Caroline Turnage-Butterbaugh (mathematics), Arif Mohd (physics), Preet Sharma (physics).
Prospectus exam committee: Byunghoon Lee (mathematics).
Wrote and graded ME subject exam: Jessica Ivy, Julie James (school of education).
Wrote and graded mathematical portion of doctoral comprehensive exam: Paige Gillentine (school of education).
Wrote and graded Complex Analysis comprehensive exam: 8/2012, 1/2014, 8/2014, 1/2015.
Co-wrote Algebra comprehensive exam: 1/2015.

References

Steven M. Gonek (Adviser), Professor of Mathematics, University of Rochester.
`gonek@math.rochester.edu`

Kannan Soundararajan, Professor of Mathematics, Stanford University.
`ksound@math.stanford.edu`

J. Brian Conrey, Executive Director of the American Institute of Mathematics and Professor of Mathematics, University of Bristol.
`conrey@aimath.org`

Jeffrey Vaaler, Professor of Mathematics, University of Texas.
`vaaler@math.utexas.edu`

Daniel A. Goldston, Professor of Mathematics, San Jose State University.
`goldston@math.sjsu.edu`

William Staton (Teaching), Professor Emeritus, University of Mississippi.
`mmstaton@olemiss.edu`

Last updated: March 29, 2015