

## Robert Grizzard

---

CONTACT INFORMATION Department of Mathematics grizzard@math.wisc.edu  
The University of Wisconsin-Madison www.math.wisc.edu/~grizzard  
480 Lincoln Drive  
Madison, WI 53706-1325

CURRENT POSITION Visiting Assistant Professor, The University of Wisconsin-Madison, 2014 - present

PAST POSITIONS Assistant Instructor, The University of Texas at Austin, 2011-2014  
Teaching Assistant, The University of Texas at Austin, 2008-2011

EDUCATION The University of Texas at Austin  
Ph.D. in mathematics, May 2014  
⊕ Advisor: Jeffrey Vaaler  
St. Edward's University (Austin, TX)  
B.A. in mathematics, May 2007  
⊕ Magna Cum Laude  
⊗ Minor in computer science

AWARDS Honored Instructor, Division of University Housing (nominated by students), UW-Madison, Fall 2014, Fall 2015, & Fall 2016  
Regents' Endowed Graduate Fellowship, University of Texas Department of Mathematics, Fall 2013

PUBLICATIONS Remarks on a conjecture of Smyth (with J. Berg), in preparation.  
Multiplicative diophantine approximation (with J. D. Vaaler), in preparation.  
Slicing the stars: counting algebraic numbers, integers, and units by degree and height (with J. Gunther), submitted. (preprint: <http://arxiv.org/abs/1609.08720>)  
Small points and free abelian groups (with P. Habegger and L. Pottmeyer), *International Mathematics Research Notices* 2015, no. 20, 10657-10679.  
Relative Bogomolov extensions, *Acta Arithmetica* 170 (2015), no. 1, 1-13.  
On the compositum of all degree  $d$  extensions of a number field (with Itamar Gal), *Journal de Théorie des Nombres de Bordeaux* 26 (2014) no. 3, 655-672.  
Congruences for Ramanujan's  $f$  and  $\omega$  functions via generalized Borcherds products (with J. Berg, A. Castillo, V. Kala, R. Moy, and C. Wang, project from the Arizona Winter School), *The Ramanujan Journal* 35 (2014) no. 2, 327-338.

CONFERENCES & WORKSHOPS WHERE I GAVE TALKS PANTS XXVII, University of South Carolina. (December 2016)  
Québec-Maine Number Theory Conference, Université Laval, Ville de Québec (October 2016)

CNTA XIV, University of Calgary, Alberta. (June 2016)

SERMON, James Madison University, Harrisonburg, VA. (April 2016)

The geometry, algebra, and analysis of algebraic numbers, Banff International Research Station, Banff, Alberta. (October 2015)

Second ERC: Diophantine geometry, unlikely intersections, and algebraic dynamics, Cetraro, Italy. (July 2014)

Heights in Diophantine geometry, group theory and additive combinatorics, Erwin Schrödinger Institute, Vienna. (November 2013)

Maine-Québec Number Theory Conference, University of Maine, Orono. (October 2013)

PANTS XX, Davidson College, Davidson, NC. (September 2013)

SERMON, High Point University, High Point, NC. (April 2013)

Arizona Winter School 2013, Tuscon, AZ. (March 2013)

Midwest Number Theory Conference, University of Illinois, Urbana-Champaign. (October 2012)

CNTA XII, University of Lethbridge, Alberta. (June 2012)

SEMINAR AND  
COLLOQUIUM  
TALKS

*Slicing the stars* Philadelphia Area Number Theory Seminar, Bryn Mawr College (October 2016)

*Conjugate solutions to linear equations* Bi-College colloquium, Haverford College (October 2016)

*Slicing the stars* Number Theory and Representation Theory Seminar, The University of Wisconsin-Madison (June 2016)

*Small points: how small are they?* Colloquium, The University of Louisiana at Lafayette (January 2016)

*Small points and free abelian groups*, Number Theory and Representation Theory Seminar, The University of Wisconsin-Madison (October 2014)

*Relative Bogomolov extensions*, Algebra, Number Theory, and Combinatorics Seminar, The University of Texas at Austin. (October 2013)

*On the compositum of all degree  $d$  extensions of a number field*, Algebra, Number Theory, and Combinatorics Seminar, The University of Texas at Austin. (November 2012)

*The Northcott property and some open questions in algebraic number theory*, Junior Number Theory Seminar, The University of Texas at Austin. (March 2012)

*Infinite number fields having uniformly bounded local degrees*, Junior Number Theory Seminar, The University of Texas at Austin. (September 2011)

*Verifying the Northcott property*, Junior Number Theory Seminar, The University of Texas at Austin. (March 2011)

*A Banach space determined by the Weil height*, Junior Number Theory Seminar, The University of Texas at Austin. (November 2010)

OTHER  
TALKS

*Optimization: Calculus is for knuckleheads*, UT Sunday Math Circle (for high school students and teachers, March 2012)

*The Discriminant: a classy number*, UT Math Club (February 2012).

*The Lehmer Conjecture*, UT Math Club (February 2011).

TEACHING

**The University of Wisconsin-Madison**

- ⊕ Math 221 (Calculus and Analytic Geometry I) - In fall 2014, 2015, and 2016 I taught an experimental version of this course focused on active learning, in which I was in the classroom with students 5 days a week.
- ⊗ Math 341 (Honors Linear Algebra) - An introductory course in linear algebra for mathematics majors, which was also a first course in proof-writing.

**The University of Texas at Austin**

As teaching assistant (2008-2013):

- ⊕ Precalculus
- ⊗ Calculus I, II, and III (various versions, including a “flipped class” in which I was very involved)
- ⊕ Linear Algebra
- ⊗ Advanced Calculus for Applications, II (vector calculus)
- ⊕ Plan II Math – an honors program course for non-scientific majors exploring selected advanced topics

As instructor:

- ⊕ Foundations of Arithmetic (Fall 2011)
- ⊗ Foundations of Geometry, Probability, and Statistics (Spring 2012) - These two courses form the complete sequence of math courses taken exclusively by elementary education majors.

MISCELLANEOUS

**Languages:**

- ⊕ English - native speaker
- ⊗ Spanish - near fluent
- ⊕ French - intermediate (can read French mathematics papers)
- ⊗ Italian - beginner

**Athletics:**

⊕ UT Math Dept. softball team (The Infinite Cardinals) - first base, spring 2013  
& 2014