

Carolyn R. Abbott

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ACADEMICS

University of Wisconsin - Madison, Madison, WI
Ph.D. student, Mathematics (expected graduation date: May 2017)
Advisor: Tullia Dymarz

Mathematical Sciences Research Institute
Program Associate in Geometric Group Theory Semester, Fall 2016

The Graduate Center at The City University of New York
Visiting Research Scholar, Spring 2016

Cornell University, Ithaca, NY
Master of Arts and Teaching in Secondary Mathematics Education, May 2007
New York State Teaching Certificate in Mathematics 7-12 received June 2007

Tufts University, Medford, MA
B.A. in Mathematics and Asian Studies, May 2004
Magna Cum Laude

RESEARCH INTERESTS

Geometric group theory, specifically acylindrically hyperbolic groups and hierarchically hyperbolic groups

PAPERS

Abbott, Carolyn R. *Not all finitely generated groups have universal acylindrical actions*, Proc. Amer. Math. Soc., 144(10):4151-4155, 2016.
Abbott, C., Dahmani, F. *Property P_{naive} for acylindrically hyperbolic groups*, arXiv:1610.04143.
Abbott, C., Balasubramanya, S., and Osin, D., *Acylindrically hyperbolic structures on groups*, In preparation.
Abbott, C., Behrstock J., and Durham, M. *Acylindrical actions of hierarchically hyperbolic groups*, In preparation.
Abbott, C., Hume, D., and Osin, D. *Extending group actions on metric spaces*, In preparation.

INVITED TALKS

AMS Sectional Meeting, Special Session on Metric Geometry, Loyola University, October 2015
Vanderbilt University, Group Theory and Geometry Seminar, November 2015
Temple University, Graduate Student Seminar, January 22, 2016
The Graduate Center at The City University of New York, Geometry and Topology Seminar, February 2, 2016
The Graduate Center at The City University of New York, Hyperbolic Geometry Seminar, March 2016
Swarthmore College, Colloquium, March 3, 2016
Brandeis University, Seminar, March 8, 2016
City College of New York, Colloquium, April 21, 2016
GAGTA Conference, Stevens Institute of Technology, June 15, 2016

Beyond Hyperbolicity Conference, Cambridge University, June 2016
Wasatch Topology Conference, August 2016

AWARDS

Nominated: **Exceptional Service (2015)**: a campus-wide award for TAs who perform exceptional service related to the educational mission of their department and our university, to be awarded February 2016

Letters & Sciences Teaching Fellow Award (2015): a campus-wide award for TAs who have achieved outstanding success as students and teachers at UW-Madison

Elizabeth S. Hirschfelder Scholarship (2014): for a female mathematician who has made excellent progress towards the Ph.D.

Department of Mathematics Teaching Award (2014)

Nominated: **Early Excellence in Teaching Award (2013)**: campus-wide award for outstanding and inspirational performance on the part of TAs with fewer than four semesters of teaching experience

University Housing's Honored Instructor Award (2012, 2014, and 2015): nominated by a student for excellent teaching

Edward A. Sheldon Award (2007): for women teachers, based on academic achievement

Robert Noyce Scholarship (2006): for teachers committed to teaching in high needs districts

Nominated: **Cornell University Mathematics Graduate Student Teaching Award (2006)**: nominated by a student for excellent teaching

Tufts University Maxine Gordon Award (2004): for a math major with a strong literary interest

Tufts University Class of 1942 Prize Award (2004): for a student most likely to become an outstanding university professor

ACADEMIC EXPERIENCE

University of Wisconsin - Madison

Instructor Spring 2013 - Spring 2014

- MATH 132: Problem Solving: Algebra, Probability and Statistics

Teaching Assistant Mentor Spring 2014-Spring 2015

- Observe and give feedback to new teaching assistants and those in need of improvement
- Create a training program for new teaching assistants
- Plan and create materials for workshops for new teaching assistants

Teaching Assistant Coordinator

- MATH 222: Calculus and Analytic Geometry II Fall 2015

Teaching Assistant

- MATH 221: Calculus and Analytic Geometry Fall 2012
- MATH 234: Calculus and Analytic Geometry III, Wisconsin Emerging Scholars (WES) Fall 2014, Spring 2015

The Anderson School, New York, NY March 2009 - June 2012

7th and 8th Grade Mathematics Teacher

- Taught Integrated Algebra and Integrated Geometry, founded an honors program for gifted students, Robotics Club advisor, MathCounts Coach

The Bronx High School of Science, Bronx, NY August 2007 - January 2009

High School Mathematics Teacher

- Taught Integrated Algebra and Geometry and Integrated Algebra and Trigonometry, Chess Club Advisor

Cornell University, Ithaca, NY

Instructor

- Math 111: Calculus 1 Fall 2006
- Math 001: Introduction to Calculus for Engineers Summer 2006

Teaching Assistant

- Math 106: Calculus for Life and Social Sciences Spring 2006
- EDUC 115: Introduction to College Mathematics Fall 2005

SERVICE

Organizer, MSRI Working Seminar on $Out(F_n)$ -complexes (Fall 2016): Plan and organize a seminar open to all members of MSRI.

Founder, Directed Reading Program (Fall 2015): Program pairs undergraduates with graduate student mentors for a semester-long independent study

Member, CTAPP Committee (Fall 2014 - Fall 2015): Evaluate teaching assistants in the math department, determine policies for TA responsibilities and pay structure

Graduate Coordinator, Madison Math Circle (Spring 2014 - Fall 2015): Organized refreshments and supplies, and coordinated weekly talks by graduate students and faculty on various topics in mathematics for middle and high school students

Mentor and Administrative Assistant, Instructional Excellence Program (Fall 2013 - Fall 2015): Mentor new TAs in the math department, plan and run training workshops on interactive teaching, facilitating group work, writing quizzes, and grading, observe new TAs and give feedback

Fundraising Event (September 2015): Assistant to Jordan Ellenberg in UW-Madison fundraiser held in New York City

Math Help Desk (Fall 2013 - Fall 2015) Advised undergraduate students on which math courses were most appropriate for them to take and helped them find a class that fit in their schedule

Student Orientation, Advising, and Registration (January 2014, June 2014, August 2015) Advised new undergraduate students on which math courses were most appropriate for them to take, as well as helped students plan a course of study if their interest was mathematics

Graduate Coordinator, Women in Math at Wisconsin (Fall 2014 - Fall 2015) Coordinate events for women in the math department, including inviting colloquium speakers and organizing social events

Project Mentor, Women in Math at Wisconsin: High School Math Night (Fall 2013) Mentor for local high school women, with weekly work on an RSA encryption project, through the Women in Math at Wisconsin organization