

Carolyn R. Abbott

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- Appointments** **NSF Postdoctoral Fellow** June 2018 -
University of California, Berkeley
- Morrey Visiting Assistant Professor** August 2017- June 2018
University of California, Berkeley
- Education** **University of Wisconsin-Madison**, Madison, WI May 2017
Ph.D. in Mathematics, Advisor: Tullia Dymarz
- Cornell University**, Ithaca, NY
Master of Arts and Teaching in Secondary Mathematics Education, May 2007
New York State Teaching Certificate in Mathematics 7-12 June 2007
- Tufts University**, Medford, MA May 2004
B.A. in Mathematics and Asian Studies, Magna Cum Laude
- Visiting Positions** **Mathematical Sciences Research Institute** Fall 2016
Program Associate in Geometric Group Theory Semester
- The Graduate Center at CUNY** Spring 2016 & Spring 2017
Visiting Research Scholar
- Research Interests** Geometric group theory, specifically acylindrically hyperbolic groups and hierarchically hyperbolic groups
- Papers**
1. Abbott, Carolyn R. *Not all finitely generated groups have universal acylindrical actions*, Proc. Amer. Math. Soc., 144(10):4151-4155, 2016.
 2. Abbott, C., Dahmani, F. *Property P_{naive} for acylindrically hyperbolic groups*, arXiv:1610.04143 (To appear in Math. Z.).
 3. Abbott, C., Balasubramanya, S., and Osin, D., *Acylindrically hyperbolic structures on groups*, (submitted).
 4. Abbott, C., Behrstock J., and Durham, M. *Acylindrical actions of hierarchically hyperbolic groups*, (submitted).
 5. Abbott, C., Hume, D., and Osin, D. *Extending group actions on metric spaces*, (submitted).
 6. Abbott, C., Hume, D. *The geometry of generalized loxodromic elements.*, (submitted).

**Invited
Conference
Talks**

AMS Sectional Meeting, Special Session on Metric geometry, Loyola University, October 2015
GAGTA Conference, Stevens Institute of Technology, June 2016
Beyond Hyperbolicity Conference, Cambridge University, June 2016
Wasatch Topology Conference, August 2016
Topology and Dynamics Conference, March 2017
Geometric Groups on the Gulf Conference, March 2017
Virginia Topology Conference, November 2017
Joint Math Meetings, Special Session on Boundaries for groups and spaces, January 2018
Young Geometric Group Theorists Conference, March 2018
AMS Sectional Meeting, Special Session on Non-positive curvature and boundaries, Vanderbilt University April, 2018
Workshop on Large Scale Geometry and Applications, Fields Institute, May 2018
Boundaries of Groups, CIRM-Luminy, June 2018
Graphs, Surfaces, and Cube Complexes, Warwick, July 2018

**Invited Seminar
Talks**

Vanderbilt University, Group Theory and Geometry Seminar, November 2015
Temple University, Graduate Student Seminar, January 2016
The Graduate Center at CUNY, Geometry and Topology Seminar, February 2016
The Graduate Center at CUNY, Hyperbolic Geometry Seminar, March 2016
Swarthmore College, Colloquium, March 2016
Brandeis University, Seminar, March 2016
City College of New York, Colloquium, April 2016
MSRI Postdoctoral seminar, December 2016
Temple University, Geometry Topology Seminar, February 2017
Cornell University, Geometry Topology Seminar, February 2017
University of Illinois - Chicago, Geometry Topology Seminar, February 2017
Boston College, Geometry/Topology Seminar, March 2017
Rice University, Geometry/Topology Seminar, March 2017
Columbia University, Geometry/Topology Seminar, February 2017
Institute Fourier, Grenoble Alps, Geometry/Topology Seminar, March 2017
University of Nice, Dynamics Seminar, April 2017
University of California, Berkeley, Geometry Topology Seminar, August 2017
University of California, Santa Barbara, Geometry Topology Seminar, January 2018
University of California, Irvine, Geometry Topology Seminar, February 2018
Yale University, Geometry Topology Seminar, March 2018
University of California, Davis, Geometry Topology Seminar, April 2018
Stanford University, Geometry/Topology Seminar, April 2018

Awards

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)
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
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

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

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

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

Academic Experience

University of California, Berkeley

- Math 113: Abstract Algebra
- Math H54: Honors Linear Algebra and Differential Equations

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

Co-organizer, UC Berkeley Geometry-Topology Seminar (Fall 2017-current): Plan and organize the weekly Geometry/Topology seminar.

Senior Thesis Advisor, UC Berkeley (Spring 2018): Advise undergraduate student writing a senior honors thesis defining train track splittings on orbifolds.

Organizer, MSRI Working Seminar on $\text{Out}(F_n)$ -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