

# Yen Duong

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- EDUCATION** *Ph.D.*, Mathematics  
University of Illinois at Chicago. August 2017.  
Dissertation: “On Random Groups: the Square Model at  $d < 1/3$  and as Quotients of Free Nilpotent Groups.”  
*M.A.*, Mathematics  
University of California, Santa Barbara. June 2012.  
*B.A.*, Mathematics and Philosophy  
Yale University, New Haven, CT. May 2010.
- PUBLICATIONS** M. Cordes, M. Duchin, **Y. Duong**, A. Sánchez, T. Ho. “Random Nilpotent Groups I,” *International Mathematics Research Notices*, February 2017.
- Y. Duong**, K. Meehan, L. Merrill, L. Snyder. “Intrinsically Linked Signed Graphs in Projective Space,” *Discrete Mathematics*. 312 (2012), no. 12-13, 2009-2022.
- AWARDS AND FELLOWSHIPS** *Research and Training Grant Pre-Doctoral Fellow* Fall 2014  
One semester research fellowship
- University Fellow* 2012-2013, 2015-2016  
Two-year fellowship at University of Illinois at Chicago
- Graduate Opportunity Fellow* 2010-2011  
One-year fellowship at University of California, Santa Barbara
- Mellon Mays Undergraduate Fellow* Spring 2008-present  
National fellowship supporting minorities in academia
- Barge and Runk Prize* Spring 2007  
Yale University: underclassmen competitive examination in mathematics
- LEADERSHIP, MENTORSHIP** Carolinas Women in Mathematics Symposium Fall 2017
- Organized and founded conference for women in mathematics in North and South Carolina at the University of North Carolina at Charlotte, working with mathematics department
  - Won inaugural Women in Mathematics Ambassador grant from Institute for Advanced Studies to support 27-person conference of women from 8 local universities
- Texas Women in Mathematics Symposium Fall 2016
- Founded annual traveling conference for women in mathematics in Texas
  - Wrote proposals and received funding from UT Austin Graduate College, NSF Research and Training Grant, UT Austin Mathematics Department for 55-person conference of women from 23 Texas universities
- Directed Reading Program, University of Texas at Austin. Fall 2015, Spring 2016

- Mentored three undergraduates in topology reading projects and presentations.

Mellon Mays Undergraduate Fellowship Professional Network 2013-2014

- Vice-Chair of Development. Organize Chicago area networking for MMUF alumni
- Talk: “Hyperbolic Groups Rule the World!” Yale March 26, 2014
- Talk: “Special Cube Complexes: The future of hyperbolic studies” MMFPN Chicago event May 10, 2014

Midwest Women in Mathematics Symposium Spring 2013

- Founded annual traveling conference for women in mathematics in the midwest
- As of 2017, in its fifth iteration and has grown from 39 participants at 12 universities to 100 participants from 36 universities in five different states

M&M Seminar, UCSB. 2011-2012

- Established semiweekly interdisciplinary mathematics and philosophy seminar
- Grant Received: Graduate Student Scholarly Collaborations
- Some talks: “Why Should I Believe You? Mathematics and Epistemological Privilege”, “Everything”, “On Infinity”

**SEMINARS,  
COLLOQUIA,  
SERVICE**

Graduate Student Seminar, Temple University. October 2015

- Talk: “An introduction to cube complexes and random groups”

Junior Topology Seminar, University of Texas at Austin. Fall 2015

- Talk: “From folds to Cubulations: an introduction to special cube complexes”

UIC Recruitment Day Mar 2014

- Special lecture: “A problem in geometric group theory”

Graduate Student Colloquium, UIC.

- Talk: “Introduction to Group Cohomology” Nov 2012
- Talk: “Introduction to Teichmuller space, the mapping class group, and the curve complex” Mar 2014

Graduate Geometry, Topology and Dynamics Seminar, UIC.

- Talks: “Fundamental Theorem of Bass Serre Theory,” “Schreier’s Theorem,” “Trees” Spring 2013
- Organizer. Talks: “What is a Stallings Fold?,” “What is small cancellation theory?,” “Random groups are perfect” 2013-2014

Association for Women in Mathematics, UIC. 2012-2014

- Helped organize various AWM activities, served on a panel for undergraduates applying to graduate school, moderated a Work-Life balance panel.

Hypatian Seminar, UCSB. 2010-2012

- Seminar for underrepresented groups in academia, general student guidance.
- Attendee and talk given, presented at JMM Outreach Poster Session

**TEACHING ASSISTANT EXPERIENCE**

- Math 3C. Differential and Integral Calculus I. UCSB, Summer 2011
- Math 3A. Calculus with Applications, First Course. UCSB, Fall 2011
- Math 34A. Calculus for Social and Life Sciences. UCSB, Winter 2012
- Math 3B. Differential and Integral Calculus II. UCSB, Spring 2012
- Math 181. Calculus II. UIC, Fall 2012
- Math 180. Calculus I. UIC, Spring 2013
- Math 179. Emerging Scholars Workshop for Calculus. UIC, 2013-2014

**WORKSHOPS AND SUMMER SCHOOLS**

*IAS Women And Mathematics Program: Geometry and Randomness in Group Theory.* May 15-26 2017

- Teaching Assistant for “Random Groups” minicourse.

*IAS Women And Mathematics Program: Words, Curves and Loops.* May 9-20 2016

- Talk: “Working with the Square Model of Random Groups.” Available online.

*MSRI Summer Graduate School: Geometric Group Theory.* June 15-26 2015

*Research Cluster in Random Groups.* Tufts University, Boston. June 25- Aug 5 2014

*Summer School on the Geometry of Outer Space.* Aix Marseille Université June 24-29 2013

*Topology Students Workshop.* Georgia Tech University, Atlanta. June 11-15 2012

*Geometric Group Theory Student RTG.* UC Berkeley. June 18-22 2012

*Enhancing Diversity in Graduate Education.* NC State. June 7-July 10 2010

**CONFERENCES ATTENDED**

*Tech Topology Conference* Georgia Tech, Atlanta Dec 9-11 2016

- Lightning talk: “Random groups and Cubulations.”

*Underrepresented Students in Topology and Algebra Research Symposium.* Sam Houston State University, Huntsville. April 14-15 2016

- Distinguished Graduate Speaker: “Random Groups and Cubulations.”

*Graduate Student Combinatorics Conference.* Clemson University. April 1-3 2016

- Talk: “The Square Model of Random Groups.”

*Graduate Student Conference in Algebra, Geometry and Topology.* Temple University, Philadelphia. March 14-15 2016

- Talk: “Working with the Square Model of Random Groups.”

*Workshop on Mapping Class Groups and  $Out(F_N)$ .* University of Texas, Austin. May 25-30 2015

*Cornell Topology Festival.* May 8-10 2015

*Graduate Student Topology and Geometry Conference.* UIUC. Mar 28-29 2015

- Talk: “Random Groups are Perfect.”

*GEAR Junior Retreat.* University of Michigan, Ann Arbor. May 23-June 1 2014

- Young Geometric Group Theory III.* CIRM, Luminy. Jan 20-24 2014
- Geometry and Topology in New York.* Columbia University . Aug 12-16 2013
- Midwest Women in Mathematics Symposium*
- UIC. Founder and Organizer. April 20, 2013
  - Notre Dame. Talk: “Small Cancellation Theory and Hyperbolicity” April 5, 2014
- Hot Topics: Surface subgroups and cube complexes.* MSRI. March 18 - 22, 2013
- Young Geometric Group Theory II.* Technion, Haifa, Israel. Feb 3-7, 2013
- Women in Mathematics Symposium.*
- Pomona College, CA. Talk: “Expander Exposition” Nov 20, 2010
  - Loyola Marymount University, CA. Talk: “Some Philosophies of Mathematics.” Jan 21, 2011
- Joint Mathematics Meetings.*
- San Francisco, CA. Jan 13-16, 2010. Undergraduate research poster session.
  - Boston, MA. Jan 5-7, 2012. Outreach poster session.

**OTHER**

- Science Fair Judging:*
- Austin Energy Regional Science Festival. February 2016 and 2017
  - QED: Chicago’s Youth Math Symposium. April 27, 2013
  - California State Science Fair, Los Angeles. Springs 2011 and 2012
- Languages:* Intermediate French, intermediate Vietnamese
- Media:* Blog: Baking and Math, <http://bakingandmath.com>
- Joint work with Mark Krasniewski.*
- Ian Minh Krasniewski Oct 7, 2014
  - Maeve Kim Duong March 30, 2017