

Ellie Grano

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Department of Mathematics
University of California
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EDUCATION

- Ph.D., Mathematics, *University of California, Santa Barbara* (Expected) 2012
Advisor: Stephen Bigelow
- M.A., Mathematics, *University of California, Santa Barbara* 2009
- B.S., Applied Mathematics, *North Carolina State University* 2006
Minor in Computer Science
Magna Cum Laude

RESEARCH INTERESTS

- Topology and knot theory
- Defining and analyzing new planar algebras using a skein theoretic approach
- Applying planar algebras to knot theory

PUBLICATION LIST

- (Preprint) The jellyfish algorithm is well-defined for the *ADE* planar algebras
- (Preprint) The disambiguated Temperley-Lieb planar algebra

CONFERENCES ATTENDED

- 4th Annual Women in Math Symposium, *Loyola Marymount University* January 21, 2012
- 2012 Joint Mathematics Meetings, *Boston* January 4-7, 2012
- Pacific Coast Undergraduate Mathematics Conference, *Loyola Marymount University* March 12, 2011
- Southern California Topology Colloquium, *Pomona College* March 26, 2011.
- 3rd Annual Women in Math Symposium, *Pomona College* November 20, 2010
- Subfactors Ski Retreat, *Lake Tahoe, CA* February 15-21, 2010
- AMS Regional Meeting, *UC Riverside* November 7-8, 2009
- Braids in Pau, *University of Pau, France* October 5-8, 2009

TALKS GIVEN

- The Disambiguated Temperley-Lieb Algebra January 21, 2012
4th Annual Women in Math Symposium, *Loyola Marymount University*
- The Disambiguated Temperley-Lieb Algebra January 4, 2012
2012 Joint Mathematics Meetings, *Boston, MA*
- The Disambiguated Temperley-Lieb Planar Algebra November 4, 2011
Graduate Topology Seminar, *UCSB*

- Investigating the Closed Diagrams of Planar Algebras
Claremont Topology Seminar, *Pomona College* April 12, 2011
- The Jellyfish Algorithm for the ADE Planar Algebras
Graduate Topology Seminar, *UCSB* January 21, 2011
- The Jellyfish Algorithm
3rd Annual Women in Math Symposium, *Pomona College* November 20, 2010
- The Jellyfish Algorithm is Well-Defined on the D_{2n} Planar Algebras
Advancement to Candidacy, *UCSB* September 2, 2010
- Planar Algebras
Graduate Algebra Seminar, *UCSB* January 20, 2010
- The Temperley-Lieb Algebra
Graduate Topology Seminar, *UCSB* October 29, 2009
- The Geometries of 3-manifolds
Graduate Topology Seminar, *UCSB* Spring, 2009
- Seifert Fibered Spaces
Graduate Topology Seminar, *UCSB* Winter, 2009
- The Brouwer Fixed Point Theorem from a Homological Viewpoint
Graduate Real Analysis Course, *UCSB* March 11, 2008
- Image Similarity Techniques for Detecting Image-Based SPAM
Graduate Student Seminar, *UCSB* February 7, 2007

TEACHING EXPERIENCE

- Instructor of Record 2011
 - Math 3A: Differential Calculus, Summer, 2011
 - Math 34A: Business Calculus, Spring, 2011
- Teaching Assistant 2006-2011
 - Won the UCSB math department “Outstanding TA Award” for the school year 2010-2011
 - Upper and lower division undergraduate math courses assisted at UCSB
 - Math 3CI: Inquiry-Based Honors Differential Equations and Linear Algebra I Fall 2011
 - Math 111A: Introduction to Abstract Algebra, Group Theory Fall 2008
 - Math 117: Methods of Analysis Winter 2007
 - Math 8: Transition to Higher Mathematics Summer 2007
 - Math 3A, 3B: Differential and Integral Calculus 4 occasions
 - Math 3C, 5A: Differential Equations and Linear Algebra 4 occasions
 - Math 5B: Vector Calculus 2 occasions
 - Math 34A, 34B: Business Calculus 6 occasions
- Additional teaching experience
 - Calculus Instructor for the SIMS program at UCSB Summer 2009
 - Leader for Math Circle at UCSB Winter 2011
 - Tutor in Raleigh, NC and Santa Barbara, CA 2004-2011
 - Developed math education software for Shodor Education Foundation 2003-2006

SERVICE

- Co-organizer of the Hypatian Seminar at UCSB August 2008 - present
 - Duties include: managing the website, inviting speakers, assisting in writing grant proposals, organizing and participating in panel discussions, and advertising talks and events

- Mentor Summer 2007 - present
 - Met with a former student weekly to help him learn about metric spaces using Sutherland's book, *Introduction to Metric and Topological Spaces*, beginning summer 2011
 - Volunteered to speak with undergraduates about graduate school at the Pacific Coast Undergraduate Mathematics Conference, at *Loyola Marymount University* on March 12, 2011
 - Mentored two incoming math graduate students through the Hypatian Seminar, one starting in 2007, the other starting in 2008
 - Participated in UCSB "Women in Math Lunches designed to be a platform for undergraduate women to get to know women in graduate school, held during Spring 2009

PROGRAMMING SKILLS

- Proficient with: Java, HTML, UNIX, Excel, Matlab, Mathematica, Maple, Adobe Photoshop, TikZ in L^AT_EX
- Familiar with: C, C++, PHP, Stella