

RESEARCH INTERESTS

I am interested in algebraic combinatorics.

EDUCATION

University of Michigan

Ph.D., Mathematics, Expected 2025

San Francisco State University

M.A., Mathematics, June 2020

Thesis: *Incidence graph statistics for curves in projective space*

Advisors: Dr. Emily Clader and Dr. Dustin Ross

Graduate Hood for the College of Science and Engineering Spring 2020

Stanford University

M.Ed., Secondary Math, June 2010

California Single Subject Credential in Mathematics

University of Chicago

B.S., Mathematics, June 2009

Graduated with Honors

Student Marshal (highest academic award at the University of Chicago)

PROFESSIONAL POSITIONS

University of Michigan Math, Computer Science, and Statistics Scholars

Graduate Teaching Assistant, May 2023 – present

University of Michigan Undergraduate Program

Graduate Student Instructor, Math 115 Calculus I, August 2020 – April 2021

Math 116 Calculus II, August 2022 – April 2023

University of Michigan Mathematics

Grader, Math 582 Introduction to Set Theory, Spring 2022

University of Michigan Math and Science Scholars

Graduate Student Teaching Assistant, Mathematics of Cryptography, July 2021

San Francisco State University

Research Assistant and Grader, August 2019 – June 2020

San Francisco State University

Curriculum Developer, Math 198 Pre-Calculus, January 2019 – June 2019

San Francisco State University

Graduate Teaching Assistant, Math 197/198 Pre-Calculus, August 2018 – June 2019

San Francisco Unified School District

Teacher Coach, Project-Based Learning, August 2018 – June 2019

San Francisco International High School

Student Support Liaison, August 2017 – June 2018

San Francisco International High School

9th and 10th Grade Math Teacher, August 2011 – June 2017

Knowles Teacher Initiative, Kaleidoscope Teaching Journal

Associate Editor, June 2016 – June 2018

San Francisco Unified School District

Curriculum Developer, Algebra I, August 2013 – June 2015

Stanford University

Master Teacher, August 2014 – June 2015

City Arts and Technology High School

9th Grade Math Teacher, August 2010 – June 2011

University of Chicago

Teaching Assistant and Tutor, September 2006 – June 2009

AWARDS AND HONORS

- Rackham Merit Fellowship, University of Michigan
 - California State University Sally Casanova Pre-Doctoral Fellowship (75 fellows system-wide per year)
 - ARCS Foundation Scholar (9 scholars at S.F. State per year)
 - David Meredith and Friends Scholarship, S.F. State Math Department 2019 (3 awarded per year)
 - Halmos Scholarship, S.F. State Math Department 2019 (3 awarded per year)
 - Milowski Scholarship, S.F. State Math Department (3 awarded per year)
 - Knowles Teacher Initiative Fellow (15 chosen nationwide per year)
 - Leonore Annenberg Teaching Fellowship administered by the Woodrow Wilson Foundation, \$30,000
-

PUBLICATIONS

- [1] Waddle, Teach Away Your Student Loans. *Kaleidoscope: Educator Voices and Perspectives* **3**, 2. (2017), 19–22.
 - [2] Barlow, R., Hartung, K., & Waddle, K. *Learning Spanish in Guatemala*. *Kaleidoscope: Educator Voices and Perspectives* **3**, 1. (2016), 2–6.
 - [3] (unpublished white paper) Fraser, James W., et al. *What Made Me the Teacher I Am Today? A Reflection by Selected Leonore Annenberg-Woodrow Wilson Teaching Fellows*. The Woodrow Wilson National Fellowship Foundation. (2016), 15–17.
-

CONFERENCE PRESENTATIONS AND SEMINAR TALKS

- Student Combinatorics Seminar, *Heronian Friezes*, University of Michigan, Fall 2023
- Undergraduate Math Club, *Frieze Your Mind*, University of Michigan, Fall 2023
- Roots of Unity, *Making a Professional Website*, Online, Fall 2023
- Student Combinatorics Seminar, *An Introduction to Coxeter Groups*, University of Michigan, Fall 2022
- Undergraduate Math Club, *Quivers and Quiver Mutation*, University of Michigan, Fall 2022
- Algebraic Combinatorics Learning Seminar, *Dimers and Spanning Trees*, University of Michigan, Fall 2022
- Student Combinatorics Seminar, *Quivers and Plabic Graphs*, University of Michigan, Spring 2022
- Learning Community for Inclusive Teaching, *Assigning Competence*, University of Michigan, Spring 2022
- Curriculum and Instruction Course for Secondary Math Teachers, *Getting the Most out of a Test*; San Francisco State University, Spring 2020, 2021, 2022
- Algebraic Combinatorics Learning Seminar, *Quivers and Plabic Graphs*, University of Michigan, Spring 2022
- Algebraic Combinatorics Learning Seminar, *q, t -Catalan Numbers*, University of Michigan, Fall 2021
- Student Combinatorics Seminar, *Schubert Calculus*, University of Michigan, Fall 2021
- Student Combinatorics Seminar, *Incidence Graph Statistics for Curves in Projective Space*, University of Michigan, Spring 2021
- Michigan Research Experience for Graduates, *Rational Catalan Numbers and Deograms*; Ann Arbor, Summer 2021.

- Teachers for Social Justice, *A Story of Education Reform: How SFSU Adapted Math Curriculum in Response to Government Mandates*; San Francisco, Fall 2019.
 - San Francisco Unified School District Math Department Lead Meeting, *Getting the Most Out of a Test*; San Francisco, Spring 2017.
 - California Math Council North, *Getting the Most Out of a Test*; Asilomar, Fall 2016.
 - Knowles Teacher Initiative Summer Meeting, *Teaching English While Teaching Math*; Philadelphia, Summer 2012.
 - Argonne Undergraduate Research Symposium, *The Grigorchuk Group*; Illinois, Fall 2008.
-

PROFESSIONAL DEVELOPMENT AND WORKSHOP ATTENDANCE

- Gender Equity in the Mathematical Sciences of Combinatorics, American Institute for Mathematics, March 2023
 - Roots of Unity Workshop, University of Minnesota, June 2022
 - Encuentro Colombiano de Combinatoria, Bogota, Colombia, June 2022
 - Michigan Research Experience for Graduates, University of Michigan, July 2021
 - SUBgroups, Fall 2020 – Spring 2021
 - MSRI Graduate Summer School, Geometric Group Theory, Oaxaca, Mexico, July 2019
 - Women and Mathematics, Institute for Advanced Study, Princeton, New Jersey, June 2019
 - University of Chicago Research Experience for Undergraduates, Chicago, IL
Group Actions on Trees, Summer 2007
The Grigorchuk Group, Summer 2008
 - Budapest Semesters in Mathematics, Budapest, Hungary, Fall 2007
-

SERVICE

- President, Association for Women in Mathematics University of Michigan Chapter, Fall 2021 – Present
- Organizer, SUBgroups peer mentoring network, Fall 2022 – present
- Panelist, Work-Life Balance Panel, Women in Science and Engineering, University of Michigan, Fall 2022
- Organizer, Mentor, University of Michigan Mathematics Directed Reading Program, University of Michigan, Spring 2022 – Fall 2023

- Mentor, AWM Mentor/Mentee Program, University of Michigan, Fall 2021 – Present
 - Media Fellow, Talking Big Jobs Webinar Series, Tondeur Initiatives, AMS/SIAM, Fall 2019 – Spring 2020
 - President and Outreach Officer, Mathematistas Club, San Francisco State University, Fall 2018 – Spring 2020
 - Associate Editor, Kaleidoscope: Educator Voices and Perspectives, Spring 2016 – Spring 2018
 - President, Math Club, University of Chicago, Chicago, Illinois, Fall 2008 – Spring 2009
-