Jennifer Zhu

Education

2021 - present PhD, Pure Mathematics - Quantum Information, University of Waterloo

2019 - 2021 PhD, Mathematics, Texas A&M University

2014 - 2018 Bachelor of Arts, Mathematics, University of California, Berkeley

Research Interests

Operator algebras, quantum information theory.

Papers

The Bullet Problem with Discrete Speeds. B. Dygert, M. Junge, C. Kinzel, A. Raymond, E. Slivken, J. Zhu. *Electronic Communications in Probability*, Volume 24, Issue 27 (2019), pp. 1 - 11. (Result of a REU during 2016.).

Talks

Jun 25, 2021 Mermin-Peres Magic Square Game Texas A&M University

Texas A&M REU: Graduate Student Talks

Oct 10, 2020 What Can We See Through Our Hahn-Banach-ulars? Texas A&M University

A Gathering in Graduate Expository Mathematics (GIG'EM) Conference

Awards

Winter 2022 Cotton Family Women in Mathematics Graduate Scholarship University of Waterloo

\$1500; non-recurring

2021 **Provost Doctoral Entrance Award for Women** University of Waterloo

\$2500; non-recurring

2019 - 2021 R.E. Basye Graduate Merit Fellowship Texas A&M University

\$32,000 stipend the first year with no duties, additional \$7800 per year for five years

Teaching

Fall 2021 Grader, Math 116, Math 117 University of Waterloo

Spring 2021 Recitations, Math 152: Engineering Mathematics II (4.23/5) Texas A&M University

Proctored and graded tests, created review material based on lecture notes, answered questions in class, by email, and via Piazza. Rating based on fostering an effective learning environment, effectiveness of teaching methods, helpfulness of online materials.

Fall 2020 Recitations, Math 147: Calculus I for Biological Sciences (3.96/5) Texas A&M University

Proctored and graded tests, created review material based on lecture notes, answered questions in class and by email. Rating based on fostering an effective learning environment.

Service

Conferences

Fall 2020 Advocating for Students of Color

Nov 20 - 22, AMS paraDIGMS Fall Conference
2020 IMSI

Leadership

American Mathematical Society Grad Student Chapter
2020 - 2021: Treasurer

Institute of Quantum Computing Community Committee
Winter 2022: Member

Texas A&M University
University of Waterloo

TAMU Math Graduate Student Diversity Committee

Texas A&M University

Spring 2021: Vice President Fall 2020: Co-founder

Mentorship

Directed Reading Program (DRP) Mentor

Texas A&M University

Fall 2020: Guided an undergraduate through applications of linear algebra to mathematical biology.

Membership

Operator Algebras Mentor Network (OAMN)

Spring 2020 - present: Mentee

Outreach

Spring 2021 Math/Stats Fair Volunteer

Texas A&M University

Workshops Attended

August 27, **OAMN Mentorship Training: Diversity, Equity, and Inclusion** 2021

Workshop led by Dr. Chandra Erdman and Erin Brown highlighting how mentors can use their advantages to mitigate disadvantages mentees might face.

June 21 - July Math-to-Industry Boot Camp

30, 2021

IMA, University of Minnesota

- Intense six-week program providing PhD students in mathematics necessary skills to work outside of academia.
- O Took short courses on Python, R, data analysis, machine learning, stochastic modeling, optimization.
- O Participated in team and leadership building exercises.
- O Worked in a team to predict energy generated by hydroelectric dams in Brazil using Github to share code and data.

2020

Jun 29 - Jul 19, Groundwork for Operator Algebras Lecture Series (GOALS)

University of Michigan

Workshop consisting of lectures, problem sessions, and talks introducing graduate students to operator algebras.