

EDUCATION	University of California, Santa Barbara	Fall 2019 - Spring 2025
	Ph.D. in Mathematics , Advisor: Stephen Bigelow	(expected)
	University of Oklahoma	Fall 2014 - Spring 2017
	M.A. in Mathematics	
	University of California, Davis	Fall 2010 - Spring 2014
	B.S. in Mathematics	
PAPERS	3. Skein Theory of Affine ADE Subfactor Planar Algebras	
	<i>Thesis, in preparation.</i>	
	2. Skein Theory of Affine A Subfactor Planar Algebras	
	<i>Preprint on arXiv.</i> arxiv.org/abs/2410.05519	
	1. A Determinant Formula of the Jones Polynomial for a Family of Braids	
	with Derya Asaner, Sanjay Kumar, Andrew Pease, and Anup Poudel	
	<i>Submitted.</i> arxiv.org/abs/2408.13410	
RESEARCH INTERESTS	Quantum algebra, low-dimensional topology, operator algebras, tensor categories, diagrammatic algebras, subfactors, knot theory, quantum groups, C*-algebras, quantum topology, representation theory	
CURRENT RESEARCH PROJECTS	<ul style="list-style-type: none"> • Nuclear Dimension of Crossed Products by Hilbert Bimodules over Commutative C*-algebras with Marzieh Forough, Zahra Hasanpour-Yakhdani, Ja A Jeong, Preeti Luthra, and Karen Strung • A Skein Theory for Nichols Hopf Algebras with Alex Bisnath, and Quinn Kolt 	
AWARDS	National Science Foundation Travel Grant (\$2300)	2024
	National Science Foundation Travel Grant (\$1000)	2024
	GSA Conference Travel Grant, UC Santa Barbara (\$500)	2024
	USTARS Distinguished Graduate Student Speaker in Topology (\$200)	2024
	National Science Foundation Travel Grant (\$1350)	2023
	Operator Algebra Mentor Network Grant (\$500)	2023
	Decolvenaere Research Accelerator Award, UCSB Graduate Division (\$8000)	2023
	Individualized Professional Skills (IPS) Grant, UC Santa Barbara (\$1000)	2023
	Math Department Graduate Fellowship, University of Oklahoma (\$3000)	2015
	Richard V. Andree Memorial Scholarship, University of Oklahoma (\$2000)	2015
	Yueh-Jing Lin Fund, UC Davis (\$2500)	2013
MENTORSHIP	UCSB Directed Reading Program Mentor	December 2019 - June 2023
	REU Graduate Mentor, UCSB	June 2022 - August 2022
	Women in STEM Mentor, UCSB	September 2019 - June 2022
SERVICE	USTARS 2025 Conference Organizer Shadow	May 2024 - present
	AWM Student Chapter at UCSB, Secretary	June 2023 - present
	Directed Reading Program at UCSB Co-Organizer	December 2020 - July 2023
	Graduate Quantum Algebra and Topology Seminar Co-Organizer, UCSB	July 2023 - January 2024
	AWM Chapter at UCSB Founder and President	August 2022 - June 2023
	Quantum Algebra and Topology Seminar Co-Organizer, UCSB	September 2021 - June 2022
	Math Teacher's Circle - Oklahoma City Founder and Instructional Leader	April 2015 - June 2017
TALKS	*23. Joint Mathematics Meetings ; Knots, 3-manifolds, and Their Invariants Special Session; Seattle Convention Center; Seattle, Washington	January 2025
*=INVITED	<i>"A determinant formula of the Jones Polynomial for a family of braids"</i>	

22. **Joint Mathematics Meetings**; Advances in Operator Algebras Special Session; January 2025
Seattle Convention Center; Seattle, Washington
"Using Diagrams to Describe Quantum Symmetries and Subfactors"
- *21. **AMS Western Sectional Meeting**; Graphical Calculus in Representation October 2024
Theory and Low-Dimensional Topology Special Session; University of California,
Riverside; Riverside, California
"Index 4 Subfactor Planar Algebras and Their Corresponding Categories"
20. **Quantum Groups and Representation Theory**; North Carolina State University, October 2024
Raleigh, North Carolina
"Index 4 Subfactor Planar Algebras and their Corresponding Categories"
- *19. **Young Mathematicians in C*-Algebras**; University of Glasgow; Glasgow, August 2024
Scotland
"Using Diagrams to Describe Quantum Symmetries of Subfactors"
- *18. **Oberwolfach Seminar**; Classification of C*-Algebras and Dynamics Seminar; May 2024
Oberwolfach Research Institute for Mathematics; Oberwolfach, Germany
"Nuclear Dimension of Cuntz-Pimsner Algebras of C-Correspondences"*
17. **Banff International Research Station Workshop**; Skew Braces, Braids, and the May 2024
Yang-Baxter Equation; Banff International Research Station; Banff, Canada
"Skein Theory of Subfactor Planar Algebras"
- *16. **USTARS Distinguished Graduate Student in Topology Speaker**; April 2024
Underrepresented Students in Topology and Algebra Research Symposium; Univer-
sity of Iowa; Iowa City, Iowa
"Using Diagrams to Describe Quantum Symmetries of Subfactors"
15. **Graduate Student Topology and Geometry Conference**; Michigan State April 2024
University; East Lansing, Michigan
"Skein Theory for Index 4 Subfactor Planar Algebras"
14. **Southeastern Lie Theory Workshop**; Quantum Structures in Lie Theory; March 2024
University of Virginia; Charlottesville, Virginia
"Skein Theory for Index 4 Subfactor Planar Algebras"
13. **Women in Mathematics in Southern California Symposium**; Pomona February 2024
College; Claremont, California
"Using Diagrams to Describe Quantum Symmetries of Subfactors"
- *12. **Joint Mathematics Meetings**; Knots, Skein Modules, and Categorification January 2024
Special Session; Moscone Center; San Francisco, California
"Skein Theory of Index 4 Subfactor Planar Algebras"
- *11. **Claremont Topology Seminar**; Pomona College; Claremont, California November 2023
"Skein Theory for Affine ADE Subfactor Planar Algebras"
- *10. **Twinned Conference on C*-Algebras and Tensor Categories**; Fields Institute; November 2023
in person in Toronto, Canada; and International Centre for Mathematical Sciences;
streamed live at Edinburgh, Scotland
"Skein Theory for Affine ADE Subfactor Planar Algebras"
9. **Young Mathematicians in C*-Algebras**; KU Leuven; Leuven, Belgium August 2023
"Skein Theory of Subfactor Planar Algebras"
8. **Great Plains Operator Theory Symposium**; The Ohio State University; May 2023
Columbus, Ohio
"Skein Theory for Index 4 Subfactor Planar Algebras"
7. **AMS Spring Western Sectional**; Algebraic Structures in Knot Theory Special Ses- May 2023
sion; Fresno State University; Fresno, California
"Diagrammatic Presentations of Affine Type A Subfactor Planar Algebras of Index 4"
6. **Moab Topology Conference**; Utah State University, Moab; Moab, Utah May 2023
"Skein Theory for Affine ADE Subfactor Planar Algebras"

5. **Redbud Topology Conference**; University of Oklahoma; Norman, Oklahoma
"Skein Theory of Affine Type A Subfactor Planar Algebras" March 2023
4. **Underrepresented Students in Topology and Algebra Symposium**;
University of Washington, Seattle, Washington March 2023
"Diagrammatic Presentations of Index 4 Planar Algebras"
- *3. **Quantum Groups Seminar**; On Zoom; Hosted by Université de Lille in Lille,
France & University of Oslo in Oslo, Norway March 2023
"Skein Theory for Affine ADE Subfactor Planar Algebras"
2. **Tech Topology Conference**; Georgia Institute of Technology; Atlanta, Georgia December 2022
"Diagrammatic Presentations of Index 4 Subfactor Planar Algebras"
1. **Topology Students Workshop**; Georgia Institute of Technology; Atlanta, Georgia July 2022
"Diagrammatic Presentations of Affine Type A Subfactor Planar Algebras of Index 4"

TEACHING

- Lead TA - UC Santa Barbara** Fall 2022 - Spring 2023
Provided professional development and training to new math department TAs
- Teaching Assistant - UC Santa Barbara** Fall 2019 - present
MATH 108AB - Introduction to Linear Algebra
MATH 8 - Transition to Higher Mathematics
MATH 6A - Vector Calculus I
MATH 6B - Vector Calculus II
MATH 34B - Calculus for Social and Life Sciences
- Associate Instructor - UC Santa Barbara** Summer 2020, 2021, 2024
MATH 6A - Vector Calculus I
MATH 4A - Linear Algebra with Applications
- Adjunct Mathematics Professor - Cosumnes River College** Spring 2018 - Spring 2019
MATH 30 - Pre-Algebra
STAT 300 - Introduction to Statistics and Probability
MATH 20 - Arithmetic
- Teaching Assistant - University of Oklahoma** Fall 2015 - Spring 2017
MATH 1743 - Business Calculus I
MATH 1914 - Calculus 1 (Fast Track)
MATH 2924 - Calculus 2 (Fast Track)
MATH 1823 - Calculus 1
- Instructor of Record - University of Oklahoma** Fall 2014 - Summer 2015 & 2016
MATH 1823 - Calculus 1
MATH 1503 - College Algebra

WORKSHOPS

- Oberwolfach Research Institute for Mathematics (MFO)** May 2024
Classification of C^* -Algebras and Dynamics Seminar
- Banff International Research Station (BIRS)** May 2024
Skew Braces, Braids, and the Yang-Baxter Equation Workshop
- American Institute of Mathematics (AIM)** August 2023
Quantum Invariants and Low-dimensional Topology
- Banff International Research Station (BIRS)** June 2023
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