

EDUCATION	University of California, Santa Barbara	Fall 2019 - Spring 2025 (expected)
	<b>Ph.D. in Mathematics</b> , Advisor: Stephen Bigelow	
	University of Oklahoma	Fall 2014 - Spring 2017
	<b>M.A. in Mathematics</b>	
	University of California, Davis	Fall 2010 - Spring 2014
	<b>B.S. in Mathematics</b>	
PAPERS	<b>3. Skein Theory of Affine ADE Subfactor Planar Algebras</b>	
	<i>Thesis, in preparation.</i>	
	<b>2. Skein Theory of Affine A Subfactor Planar Algebras</b>	
	<i>Preprint on arXiv.</i> <a href="https://arxiv.org/abs/2410.05519">arxiv.org/abs/2410.05519</a>	
	<b>1. A Determinant Formula of the Jones Polynomial for a Family of Braids</b>	
	with Derya Asaner, Sanjay Kumar, Andrew Pease, and Anup Poudel	
	<i>Submitted.</i> <a href="https://arxiv.org/abs/2408.13410">arxiv.org/abs/2408.13410</a>	
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"> <li>• <b>Nuclear Dimension of Crossed Products by Hilbert Bimodules over Commutative C*-algebras</b> with Marzieh Forough, Zahra Hasanpour-Yakhdani, Ja A Jeong, Preeti Luthra, and Karen Strung</li> <li>• <b>A Skein Theory for Nichols Hopf Algebras</b> with Alex Bisnath, and Quinn Kolt</li> </ul>	
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. <b>Joint Mathematics Meetings</b> ; 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*
6. **Moab Topology Conference**; Utah State University, Moab; Moab, Utah May 2023  
*Skein Theory for Affine ADE Subfactor Planar Algebras*

	5. <b>Redbud Topology Conference</b> ; University of Oklahoma; Norman, Oklahoma <i>Skein Theory of Affine Type A Subfactor Planar Algebras</i>	March 2023
	4. <b>Underrepresented Students in Topology and Algebra Symposium</b> ; University of Washington, Seattle, Washington <i>Diagrammatic Presentations of Index 4 Planar Algebras</i>	March 2023
	*3. <b>Quantum Groups Seminar</b> ; On Zoom; Hosted by Université de Lille in Lille, France & University of Oslo in Oslo, Norway <i>Skein Theory for Affine ADE Subfactor Planar Algebras</i>	March 2023
	2. <b>Tech Topology Conference</b> ; Georgia Institute of Technology; Atlanta, Georgia <i>Diagrammatic Presentations of Index 4 Subfactor Planar Algebras</i>	December 2022
	1. <b>Topology Students Workshop</b> ; Georgia Institute of Technology; Atlanta, Georgia <i>Diagrammatic Presentations of Affine Type A Subfactor Planar Algebras</i>	July 2022
<b>TEACHING</b> *=ONLINE <b>COURSE</b>	<b>Lead TA - UC Santa Barbara</b> Provided professional development and training to new math department TAs	Fall 2022 - Spring 2023
	<b>Teaching Assistant - UC Santa Barbara</b> MATH 111A - Abstract Algebra MATH 108AB - Introduction to Linear Algebra MATH 8 - Transition to Higher Mathematics *MATH 8 - Transition to Higher Mathematics *MATH 6AB - Vector Calculus MATH 34B - Calculus for Social and Life Sciences	Fall 2019 - present
	<b>Associate Instructor - UC Santa Barbara</b> MATH 4A - Linear Algebra with Applications *MATH 6A - Vector Calculus I *MATH 4A - Linear Algebra with Applications	Summer 2020, 2021, 2024
	<b>Adjunct Mathematics Professor - Cosumnes River College</b> MATH 30 - Pre-Algebra STAT 300 - Introduction to Statistics and Probability MATH 20 - Arithmetic	Spring 2018 - Spring 2019
	<b>Teaching Assistant - University of Oklahoma</b> MATH 1743 - Business Calculus I MATH 1914 - Calculus 1 (Fast Track) MATH 2924 - Calculus 2 (Fast Track) MATH 1823 - Calculus 1	Fall 2015 - Spring 2017
	<b>Instructor of Record - University of Oklahoma</b> MATH 1823 - Calculus 1 MATH 1503 - College Algebra	Fall 2014 - Summer 2015 & 2016
<b>WORKSHOPS</b>	<b>Oberwolfach Research Institute for Mathematics (MFO)</b> Classification of $C^*$ -Algebras and Dynamics Seminar	May 2024
	<b>Banff International Research Station (BIRS)</b> Skew Braces, Braids, and the Yang-Baxter Equation Workshop Women in Operator Algebras 3	May 2024, June 2023
	<b>American Institute of Mathematics (AIM)</b> Quantum Invariants and Low-dimensional Topology	August 2023