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| <b>POSITIONS</b>          | <b>Ross Assistant Professor</b><br>The Ohio State University  | Fall 2025 - present   |
| <b>EDUCATION</b>          | University of California, Santa Barbara<br><b>Ph.D. in Mathematics</b> , Advisor: Stephen Bigelow<br>Thesis: <i>Skein Theory of Affine ADE Subfactor Planar Algebras</i><br>Certificate in College and University Teaching<br>University of Oklahoma<br><b>M.A. in Mathematics</b><br>University of California, Davis<br><b>B.S. in Mathematics</b>   | Fall 2019 - Spring 2025<br><br>Fall 2014 - Spring 2017<br><br>Fall 2010 - Spring 2014   |
| <b>PAPERS</b>             | <p><b>3. A Well-Defined Jellyfish Algorithm for the Affine <math>E_7</math> Subfactor Planar Algebra</b><br/> <i>Preprint on arXiv.</i> arxiv.org/abs/2601.09003</p> <p><b>2. Skein Theory of Affine A Subfactor Planar Algebras</b><br/> <i>Submitted.</i> arxiv.org/abs/2410.05519</p> <p><b>1. A Determinant Formula of the Jones Polynomial for a Family of Braids</b><br/> with Derya Asaner, Sanjay Kumar, Andrew Pease, and Anup Poudel<br/> <i>Submitted.</i> arxiv.org/abs/2408.13410</p>  |   |
| <b>RESEARCH INTERESTS</b> | Quantum algebra, low-dimensional topology, operator algebras, tensor categories, diagrammatic algebras, subfactors, knot theory, quantum groups, C*-algebras, quantum topology, representation theory   |   |
| <b>AWARDS</b>             | <b>USTARS Distinguished Graduate Student Speaker in Topology</b><br><b>Decolvenaere Research Accelerator Award, UCSB Graduate Division</b><br><b>Individualized Professional Skills (IPS) Grant, UC Santa Barbara</b><br><b>Math Department Graduate Fellowship, University of Oklahoma</b><br><b>Richard V. Andree Memorial Scholarship, University of Oklahoma</b><br><b>Yueh-Jing Lin Fund, UC Davis</b>   | 2024<br>2023<br>2023<br>2015<br>2015<br>2013  |
| <b>MENTORSHIP</b>         | <b>UCSB Directed Reading Program Mentor</b><br><b>REU Graduate Mentor, UCSB</b><br><b>Women in STEM Mentor, UCSB</b>  | December 2019 - June 2023<br>June 2022 - August 2022<br>September 2019 - June 2022  |
| <b>SERVICE</b>            | <b>Operator Algebra Mentor Network Mentee Board Member</b><br><b>AMS 2025 Fall Eastern Virtual Sectional Special Session Co-Organizer</b><br><b>Topology Seminar Co-Organizer</b><br><b>AWM Student Chapter at UCSB, Secretary</b><br><b>AWM EvenQuads 3 Data Collector</b><br><b>Directed Reading Program at UCSB Co-Organizer</b><br><b>Graduate Quantum Algebra and Topology Seminar Co-Organizer, UCSB</b><br><b>AWM Chapter at UCSB Founder and President</b><br><b>Quantum Algebra and Topology Seminar Co-Organizer, UCSB</b><br><b>AWM Essay Contest Judge</b><br><b>Math Teacher's Circle - Oklahoma City Founder and Instructional Leader</b> | September 2025 - present<br>February 2025 - October 2025<br>October 2024 - June 2025<br>June 2023 - June 2025<br>June 2024<br>December 2020 - July 2023<br>July 2023 - January 2024<br>August 2022 - June 2023<br>September 2021 - June 2022<br>January 2020 - March 2020<br>April 2015 - June 2017 |
| <b>TALKS</b><br>*=INVITED | <p>*34. <b>Joint Mathematics Meetings</b>; Recent Progress in Quantum Topology Special Session; Walter E. Washington Convention Center; Washington DC<br/> <i>A Well-Defined Jellyfish Algorithm for Affine <math>E</math> Planar Algebras</i></p> <p>*33. <b>Joint Mathematics Meetings</b>; Recent Developments by Women in Mathematical Physics Special Session; Walter E. Washington Convention Center; Washington DC<br/> <i>Fusion Categories Arising from Affine A Planar Algebras</i></p>   | January 2026<br>January 2026  |

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| *32. <b>Banff International Research Station Workshop;</b> Operator Algebraic Quantum Groups; Banff, Canada   | <i>A Well-Defined Jellyfish Algorithm for Affine E Subfactor Planar Algebras</i> | December 2025 |
| *31. <b>West Coast Operator Algebra Seminar;</b> Pomona College; Claremont, California  | <i>A Well-Defined Jellyfish Algorithm for Affine E Subfactor Planar Algebras</i> | December 2025 |
| *30. <b>European Quantum Algebra Lectures;</b> Virtual; Hosted by Cardiff University and University of Nottingham   |  | November 2025 |
| *29. <b>East Coast Operator Algebras Seminar;</b> University of Nebraska - Lincoln; Lincoln, Nebraska   | <i>Subfactor Planar Algebras at Index 4</i>                                      | October 2025  |
| 28. <b>Young Mathematicians in C* Algebras;</b> University of Southern Denmark, Odense, Denmark   | <i>Subfactor Planar Algebras of Type Affine E7</i>                               | July 2025     |
| *27. <b>AWM Research Symposium;</b> Non-commutative algebras, tensor categories, and diagrams Special Session; University of Wisconsin-Madison, Madison, Wisconsin                              | <i>Diagrammatics of Index 4 Subfactor Planar Algebras</i>                        | May 2025      |
| *26. <b>AMS Spring Western Sectional Meeting;</b> Knot Theory and Quantum Topology Special Session; California Polytechnic State University; San Luis Obispo, California                        | <i>Diagrammatics of Index 4 Subfactor Planar Algebras</i>                        | May 2025      |
| 25. <b>Women in Noncommutative Algebra and Representation Theory 4;</b> Banff International Research Station, Banff, Canada   | <i>Planar Algebras and their Corresponding Categories</i>                        | March 2025    |
| 24. <b>Quantum Groups, Tensor Categories and Quantum Field Theory Workshop;</b> University of Oslo, Oslo, Norway  | <i>Index 4 Subfactor Planar Algebras and Their Corresponding Categories</i>      | January 2025  |
| *23. <b>Joint Mathematics Meetings;</b> Knots, 3-manifolds, and Their Invariants Special Session; Seattle Convention Center; Seattle, Washington  | <i>A determinant formula of the Jones Polynomial for a family of braids</i>      | January 2025  |
| 22. <b>Joint Mathematics Meetings;</b> Advances in Operator Algebras Special Session; Seattle Convention Center; Seattle, Washington  | <i>Using Diagrams to Describe Quantum Symmetries and Subfactors</i>              | January 2025  |
| *21. <b>AMS Western Sectional Meeting;</b> Graphical Calculus in Representation Theory and Low-Dimensional Topology Special Session; University of California, Riverside; Riverside, California | <i>Index 4 Subfactor Planar Algebras and Their Corresponding Categories</i>      | October 2024  |
| 20. <b>Quantum Groups and Representation Theory;</b> North Carolina State University, Raleigh, North Carolina   | <i>Index 4 Subfactor Planar Algebras and their Corresponding Categories</i>      | October 2024  |
| *19. <b>Young Mathematicians in C* Algebras;</b> University of Glasgow; Glasgow, Scotland   | <i>Using Diagrams to Describe Quantum Symmetries of Subfactors</i>               | August 2024   |
| *18. <b>Oberwolfach Seminar;</b> Classification of C*-Algebras and Dynamics Seminar; Oberwolfach Research Institute for Mathematics; Oberwolfach, Germany                                       | <i>Nuclear Dimension of Cuntz-Pimsner Algebras of C*-Correspondences</i>         | May 2024      |
| 17. <b>Banff International Research Station Workshop;</b> Skew Braces, Braids, and the Yang-Baxter Equation; Banff International Research Station; Banff, Canada                                | <i>Skein Theory of Subfactor Planar Algebras</i>                                 | May 2024      |
| *16. <b>USTARS Distinguished Graduate Student in Topology Speaker;</b> Underrepresented Students in Topology and Algebra Research Symposium; University of Iowa; Iowa City, Iowa                | <i>Using Diagrams to Describe Quantum Symmetries of Subfactors</i>               | April 2024    |

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| 15. <b>Graduate Student Topology and Geometry Conference</b> ; Michigan State University; East Lansing, Michigan<br><i>Skein Theory for Index 4 Subfactor Planar Algebras</i>  | April 2024   |
| 14. <b>Southeastern Lie Theory Workshop</b> ; Quantum Structures in Lie Theory; University of Virginia; Charlottesville, Virginia<br><i>Skein Theory for Index 4 Subfactor Planar Algebras</i>   | March 2024   |
| 13. <b>Women in Mathematics in Southern California Symposium</b> ; Pomona College; Claremont, California<br><i>Using Diagrams to Describe Quantum Symmetries of Subfactors</i>   | February 2024  |
| *12. <b>Joint Mathematics Meetings</b> ; Knots, Skein Modules, and Categorification Special Session; Moscone Center; San Francisco, California<br><i>Skein Theory of Index 4 Subfactor Planar Algebras</i>   | January 2024   |
| *11. <b>Claremont Topology Seminar</b> ; Pomona College; Claremont, California<br><i>Skein Theory for Affine ADE Subfactor Planar Algebras</i>   | November 2023  |
| *10. <b>Twinned Conference on C*-Algebras and Tensor Categories</b> ; Fields Institute; in person in Toronto, Canada; and International Centre for Mathematical Sciences; streamed live at Edinburgh, Scotland<br><i>Skein Theory for Affine ADE Subfactor Planar Algebras</i> | November 2023  |
| 9. <b>Young Mathematicians in C*-Algebras</b> ; KU Leuven; Leuven, Belgium<br><i>Skein Theory of Subfactor Planar Algebras</i>   | August 2023  |
| 8. <b>Great Plains Operator Theory Symposium</b> ; The Ohio State University; Columbus, Ohio<br><i>Skein Theory for Index 4 Subfactor Planar Algebras</i>  | May 2023   |
| 7. <b>AMS Spring Western Sectional</b> ; Algebraic Structures in Knot Theory Special Session; Fresno State University; Fresno, California<br><i>Diagrammatic Presentations of Affine Type A Subfactor Planar Algebras</i>  | May 2023   |
| 6. <b>Moab Topology Conference</b> ; Utah State University, Moab; Moab, Utah<br><i>Skein Theory for Affine ADE Subfactor Planar Algebras</i>   | May 2023   |
| 5. <b>Redbud Topology Conference</b> ; University of Oklahoma; Norman, Oklahoma<br><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<br><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<br><i>Skein Theory for Affine ADE Subfactor Planar Algebras</i>   | March 2023   |
| 2. <b>Tech Topology Conference</b> ; Georgia Institute of Technology; Atlanta, Georgia<br><i>Diagrammatic Presentations of Index 4 Subfactor Planar Algebras</i>   | December 2022  |
| 1. <b>Topology Students Workshop</b> ; Georgia Institute of Technology; Atlanta, Georgia<br><i>Diagrammatic Presentations of Affine Type A Subfactor Planar Algebras</i>   | July 2022  |
| <b>WORKSHOPS</b>   |  |
| <b>Oberwolfach Research Institute for Mathematics (MFO)</b><br>Classification of C*-Algebras and Dynamics Seminar  | May 2024   |
| <b>Banff International Research Station (BIRS)</b><br>Operator Algebraic Quantum Groups<br>Women in Noncommutative Algebra and Representation Theory 4<br>Skew Braces, Braids, and the Yang-Baxter Equation Workshop<br>Women in Operator Algebras 3                           | November 2025<br>March 2025<br>May 2024<br>June 2023 |

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|   | <b>American Institute of Mathematics (AIM)</b><br>Quantum Invariants and Low-dimensional Topology   | August 2023  |
| <b>TRAVEL GRANTS</b>                    | <b>National Science Foundation Travel Grant</b><br><b>AWM Symposium Travel Grant</b><br><b>GSA Conference Travel Grant, UC Santa Barbara</b><br><b>UCSB Doctoral Student Travel Grant</b><br><b>AMS Sectional Travel Grant</b><br><b>National Science Foundation Travel Grant</b><br><b>National Science Foundation Travel Grant</b><br><b>GSA Conference Travel Grant, UC Santa Barbara</b><br><b>National Science Foundation Travel Grant</b><br><b>Operator Algebra Mentor Network Grant</b> | 2025<br>2025<br>2025<br>2024<br>2024<br>2024<br>2024<br>2024<br>2023<br>2023 |
| <b>TEACHING<br/>*=ONLINE<br/>COURSE</b> | <b>Instructor of Record - The Ohio State University</b><br>*Math 1116 - Excursions in Mathematics<br>Math 1131 - Calculus for Business  | Fall 2025 - present  |
|   | <b>Lead TA - UC Santa Barbara</b><br>Provided professional development and training to new math department TAs  | Fall 2022 - Spring 2023  |
|   | <b>Teaching Assistant - UC Santa Barbara</b><br>MATH 111ABC - Abstract Algebra<br>MATH 108AB - Introduction to Linear Algebra<br>MATH 8 - Transition to Higher Mathematics<br>*MATH 8 - Transition to Higher Mathematics<br>*MATH 6AB - Vector Calculus<br>MATH 34B - Calculus for Social and Life Sciences   | Fall 2019 - Spring 2025  |
|   | <b>Associate Instructor - UC Santa Barbara</b><br>MATH 4A - Linear Algebra with Applications<br>*MATH 6A - Vector Calculus I<br>*MATH 4A - Linear Algebra with Applications   | Summer 2020, 2021, 2024  |
|   | <b>Adjunct Mathematics Professor - Cosumnes River College</b><br>MATH 30 - Pre-Algebra<br>STAT 300 - Introduction to Statistics and Probability<br>MATH 20 - Arithmetic   | Spring 2018 - Spring 2019  |
|   | <b>Teaching Assistant - University of Oklahoma</b><br>MATH 1743 - Business Calculus I<br>MATH 1914 - Calculus 1 (Fast Track)<br>MATH 2924 - Calculus 2 (Fast Track)<br>MATH 1823 - Calculus 1   | Fall 2015 - Spring 2017  |
|   | <b>Instructor of Record - University of Oklahoma</b><br>MATH 1823 - Calculus 1<br>MATH 1503 - College Algebra   | Fall 2014 - Summer 2015 & 2016   |