

# Melody A.H. Molander

---

## CONTACT INFORMATION

melodymolander[at]math.ucsb.edu  
melodymolander.com

## EDUCATION

University of California, Santa Barbara  
**Ph.D. in Mathematics (pursuing)**

September 2019 - present

University of Oklahoma  
**M.A. in Mathematics**

August 2014 - May 2017

University of California, Davis  
**B.S. in Mathematics**

September 2010 - June 2014

## PAPER

1. “Diagrammatic Presentations of Index 4 Subfactor Planar Algebras” (in preparation)

## RESEARCH INTERESTS

Subfactors, Planar Algebras, Quantum Groups, Quantum Algebra, Operator Algebras,  
Low-dimensional Topology, Category Theory

## AWARDS

**Department of Mathematics Graduate Fellowship - University of Oklahoma**  
Awarded to graduate students who make exceptional contributions to the mathematics  
department

2015

**Richard V. Andree Memorial Scholarship - University of Oklahoma**  
Awarded to graduate students who have shown academic excellence, department and  
university citizenship, and activity in support of Pi Mu Epsilon

2015

**Yueh-Jing Lin Fund - UC Davis**  
Awarded to high-achieving graduate or undergraduate students.

2013

## SELECTED TALKS

*Diagrammatic Presentations of Index 4 Subfactor Planar Algebras*  
Tech Topology Conference, Georgia Tech

December 2022

*Diagrammatic Presentations of Affine Type A Subfactor Planar Algebras of Index 4*  
Topology Students Workshop, Georgia Tech

July 2022

*Diagrammatic Presentations of Affine Type A Subfactor Planar Algebras of Index 4*  
BRIDGES Conference, Poster Session, University of Utah

June 2022

*Comparing Voting Systems Using Kemeny Rankings*  
Undergraduate Research Conference, Student Poster Session - UC Davis

April 2014

*Comparing Voting Systems Using Kemeny Rankings*  
MAA Golden Section Meeting, Student Poster Session - Sonoma State University

February 2014

## TEACHING EXPERIENCE

**Teaching Assistant - UC Santa Barbara**  
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

Fall 2019 - Present

**Associate Instructor - UC Santa Barbara**  
MATH 6A - Vector Calculus I  
MATH 4A - Linear Algebra with Applications

Summer 2020, Summer 2021

**Adjunct Mathematics Professor - Cosumnes River College**

MATH 30 - Pre-Algebra  
 STAT 300 - Introduction to Statistics and Probability  
 MATH 20 - Arithmetic

Spring 2018 - Spring 2019

**Teaching Assistant - University of Oklahoma**

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

**Instructor of Record - University of Oklahoma**

MATH 1823 - Calculus 1  
 MATH 1503 - College Algebra

Fall 2014 - Summer 2015, Summer 2016

**TALKS FOR STUDENTS**

*Katherine Johnson: The Pioneer Whose Research Got Us to Outer Space!*  
 Hypatian Seminar, UC Santa Barbara

November 2021

*The Total Beginner's Guide to Creating Your Graduate Student Webpage*  
 Hypatian Seminar, UC Santa Barbara

January 2021

*Pascal's Triangle*  
 AWM, UC Santa Barbara

February 2020

*Ada Lovelace: Victorian Computer Programming Visionary*  
 Hypatian Seminar - University of California, Santa Barbara

November 2019

*My Career In Web Development (and Teaching!)*  
 Mathematics Career Day - University of California, Davis

May 2018

*Fractals and the World Around Us* (with Dr. Jeffrey Meyer)  
 Math Day Fun Session - University of Oklahoma

November 2015

*Barbers, Painters, and Berry: Famous Paradoxes and Their Relation to Mathematics*  
 Math Club at UC Davis

October 2013

**WORK EXPERIENCE****Graduate Teaching Assistant**

Mathematics Department, UC Santa Barbara

September 2019-present

**Adjunct Faculty Professor**

Cosumnes River College, Los Rios Community College District

January 2018 - August 2019

**Internet Data Exchange Director**

iHOUSEweb Inc.

July 2017 - August 2019

**Lead Mathematics Academic Tutor**

Kingsfield Tutors

July 2017 - February 2018

**Graduate Teaching Assistant**

Mathematics Department, University of Oklahoma

August 2014 - May 2017

**Tutor**

Math Center, Mathematics Department, University of Oklahoma

August 2014 - May 2017

**Grader**

Mathematics Department, University of California - Davis

August 2013 - June 2014

**Tutor**

Student Academic Success Center, University of California - Davis

August 2013 - June 2014

**ACADEMIC  
SERVICE**

<b>AWM Chapter at UCSB Founder and President</b>	August 2022 - present
<b>REU Graduate Mentor, UCSB</b>	June 2022 - present
<b>Directed Reading Program Co-Organizer and Mentor, UCSB</b>	Winter 2020 - present
<b>Women in STEM Mentor, UCSB</b>	September 2019 - present
<b>Quantum Algebra and Topology Seminar Co-Organizer, UCSB</b>	September 2021 - present
<b>Graduate Quantum Algebra and Topology Seminar Co-Organizer, UCSB</b>	September 2021 - present
<b>UC Santa Barbara Math Circle Aide</b>	September 2020 - September 2021
<b>Mathematics Career Day Panelist, UC Davis</b>	May 2018
<b>Mathematics Graduate Student Association Vice President, OU</b>	August 2016 - May 2017
<b>Math Day Fun Session Coordinator, OU</b>	November 2015, November 2016
<b>Volunteer - Women in STEM Conference by OK-EPSCOR</b>	October 2016
<b>Directed Reading Program Graduate Mentor, OU</b>	January 2016 - May 2016
<b>Math Teacher's Circle in OKC, Graduate Coordinator and Co-Founder</b>	August 2015 - May 2017
<b>TORAS Conference, Co-Organizer</b>	March 2015
<b>Undergraduate Mathematics Committee, Graduate Representative, OU</b>	August 2014 - May 2015
<b>Math Club Event Coordinator, UC Davis</b>	August 2013 - June 2014
<b>Undergraduate Volunteer, Davis Math Circle</b>	December 2012 - April 2013
<b>Coach, SF Bay Area/NorCal American Regions Mathematics League</b>	December 2012 - June 2014
<b>Math Club President, Math Club at UC Davis</b>	August 2012 - June 2013

**PROGRAMMING**

Excel, MATLAB, C, HTML, CSS, Python, SQL, and LaTeX