

## Research Interests

Commutative algebra, homological algebra, and symbolic powers of ideals. Topological data analysis and sheaf theory.

## Education

- 2021 - **Ph.D. in Mathematics**, *University of Nebraska-Lincoln*, Expected 2026  
Advised by Eloísa Grifo
- 2021 **M.S. in Mathematics**, *Missouri State University*
- 2019 **B.S. in Applied Mathematics**, *Missouri State University*  
Minor in Computer Science, with courses in Database Systems and Machine Learning

## Seminar Talks

- May 2024 **Applied Abstract Algebra: Not an Oxymoron**, *University of Nebraska-Lincoln*  
Presented to the Commutative Algebra Reading Seminar
- Oct 2023 **The Power of Symbolic Powers in Commutative Algebra**, *University of Nebraska-Lincoln*  
Presented to the Commutative Algebra Reading Seminar
- Apr 2021 **Using Finite Fields to Construct Error-Correcting Cyclic Codes**, *Missouri State University*  
Presented to the Mathematics Department as completion of Master's Degree Research Requirement

## Conferences/Workshops Attended

- Sep 2024 **KUMUNU**, *University of Missouri*
- Apr 2024 **Recent Developments in Commutative Algebra**, *Simons Laufer Mathematical Sciences Institute (formerly MSRI)*
- Jan 2024 **Introductory Workshop: Commutative Algebra**, *Simons Laufer Mathematical Sciences Institute (formerly MSRI)*
- Nov 2023 **Gender Equity in the Mathematical Study (GEMS) of Commutative Algebra**, *University of Minnesota*
- Apr 2023 **Math 125**, *University of Nebraska-Lincoln*
- Jan 2019 **Nebraska Conference for Undergraduate Women in Mathematics**, *University of Nebraska-Lincoln*

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## Positions Held

- 2021 - **Graduate Teaching Assistant**, *University of Nebraska-Lincoln*
- 2024 - **Visiting Research Student**, *Georgia Tech Research Institute*
- 2024 **Research Intern**, *Georgia Tech Research Institute*
- 2023 **Graduate Research Assistant**, *University of Nebraska-Lincoln*  
Curriculum Development for College Trigonometry  
Curriculum Development and Instructor for College of Engineering Summer Bridge Program, a program to help incoming first-year undergraduate Engineering majors succeed in their math courses
- 2019-2021 **Graduate Teaching Assistant**, *Missouri State University*

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## Teaching Experience

### Associate Convener

**Math 102: College Trigonometry**, *University of Nebraska-Lincoln*  
Responsible for coordinating all sections of College Trigonometry and supporting graduate student instructors  
Fall 2023 - Spring 2024

### Instructor of Record

**Math 102: College Trigonometry**, *University of Nebraska-Lincoln*  
Spring 2023, Fall 2023, Spring 2024

**Math 101: College Algebra**, *University of Nebraska-Lincoln*  
Summer 2022, Fall 2022

### Recitation/Lab Instructor

**Math 314: Linear Algebra**, *University of Nebraska-Lincoln*  
Fall 2024

**Math 106: Calculus I**, *University of Nebraska-Lincoln*  
Fall 2021, Spring 2022

**MTH 101: Intermediate Algebra**, *Missouri State University*  
Fall 2019, Spring 2020, Fall 2020, Spring 2021

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## Service and Outreach

- 2024 - **Graduate Student Mentor for AWM Student Chapter**, *University of Nebraska-Lincoln*
- 2024 **Graduate Student Orientation Organizer**, *University of Nebraska-Lincoln*
- 2023 - **Member of the NCUWM Organizing Committee**  
Nebraska Conference for Undergraduate Women in Mathematics is a conference for undergraduates that provides opportunities to present undergraduate research and connect with other young women mathematicians.
- 2021 - **UNL Math Day Volunteer**  
Math Day is an annual event for secondary students to participate in mathematical activities/competitions.

## Professional Development

2022-2023 **Teaching and Learning Mathematics at the Post-Secondary Level Parts I and II**, *University of Nebraska-Lincoln*

A three-credit sequence of courses intended to train mathematics graduate teaching assistants how to be an effective teacher and classroom manager.

## Computer Skills

### Languages

C++, Git, HTML, Python, Perl, SQL

### Software

Macaulay2, Mathematica, MATLAB, Microsoft Office, LaTeX