

# LOUISA B. EBBY

lbebbby@ncsu.edu

North Carolina State University ♦ Raleigh, NC

## RESEARCH INTERESTS

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My research interests include data-driven modeling and state estimation techniques with applications to the environmental sciences and biology.

## EDUCATION

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### North Carolina State University

2023 -

- Ph.D, Biomathematics

### Williams College

2016-2020

- B.A. *cum laude*, Mathematics & Environmental Studies

## RESEARCH EXPERIENCE

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### Graduate Research Assistant in the Farazmand Lab

2023-

*North Carolina State University*

*Raleigh, NC*

- Working with Dr. Mohammad Farazmand on data-driven modeling with sparse measurements from wildfires and other biological applications.

## TEACHING EXPERIENCE

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### Graduate Teaching Assistant

2023-2024

*North Carolina State University*

*Raleigh, NC*

- Teaching Assistant for Calculus I, led recitation sessions twice per week, Spring 2024
- Teaching Assistant for Differential Equations, Fall 2023
- Drop-in tutor for undergraduates in Math Multimedia Center, Fall 2023

### Secondary School Mathematics Teacher

2020-2023

*Groton School*

*Groton, MA*

- Courses taught: AP BC Calculus, Multivariable Calculus, Multivariable Calculus and Linear Algebra, Algebra 2 Honors, Summer Algebra I Review Course
- Supervised student in independent study on differential equations

### Undergraduate Teaching Assistant

2019-2020

*Williams College*

*Williamstown, MA*

- Courses: Multivariable Calculus, Differential Equations
- Graded weekly homework assignments and ran weekly help sessions

### Freelance Mathematics Tutor

2019-

- Tutor high school and undergraduate students in a variety of math courses ranging from Precalculus to Linear Algebra

## FELLOWSHIPS, HONORS & AWARDS

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University Graduate Fellowship (2023-2024), *North Carolina State University*

Lucas First Year Student Award (2024), *North Carolina State University*

## SERVICE & OUTREACH

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### Chapter Officer

2023-

*Association for Women in Mathematics (AWM)*

*NC State*

- Assist in planning Sonia Kovalevsky (SK) Day, an outreach event with workshops to inspire an interest in mathematics and problem-solving for girls in grades 7-10
- Ran an applied mathematics workshop during SK Day (Spring 2024)
- Chapter Treasurer, Summer 2024-

### Co-Organizer

2023-

*Triangle Competition in Math Modeling (TriCoMM)*

*NC State*

- Organize NC State portion of joint local modeling competition between NC State, UNC Chapel Hill and Duke University for undergraduate students
- Collaborate with organizers at other institutions to write competition problems
- Evaluate and give feedback on competition entries

### Student Seminar Chair

2024-

*Biomathematics Seminar, Biomathematics Graduate Student Association*

*NC State*

- Assist faculty organizer in inviting and coordinating speakers for weekly seminar

### Mentor

2023-

*Undergrads Union Grads (UUG)*

*NC State*

- Mentor undergraduate mathematics students in future career goals

## PRESENTATIONS

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### NCSU NSF Research Training Group Seminar

November 2024

*Wildfire Prediction from Sparse Observational Measurements*

*Raleigh, NC*

### Triangle Computational and Applied Mathematics Symposium

October 2024

*Wildfire Prediction from Sparse Observational Measurements*

*Chapel Hill, NC*

## PROGRAMMING LANGUAGES

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Matlab, R

## PROFESSIONAL AFFILIATIONS

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Association for Women in Mathematics (2024-)