

EXPERIENCE

Research

Papers (in progress), Washington State University

- *Comparing TDA Methods of Time Series Analysis* Fall 2023-Present
- *Predictive Models for Perceptions of Police-Community Interactions Involving Use of Force*, Under the guidance of Dr. David Makin, WSU Criminology Department & Dr. Bala Krishnamoorthy, WSU Mathematics Department Spring 2023-Present
- *Factors That Impact Uses of Force in Police-Community Interactions*, Under the guidance of Dr. Bala Krishnamoorthy, WSU Mathematics Department Spring 2022-Present

Presentations, Washington State University

- Three Minute Thesis Finals, March 29 2023
What Can Donuts Tell Us About Body Cam Data?

Teaching

Lecturer & Lab Instructor, Washington State University

- Math 202: Calculus for Business & Economics Lecture Fall 2023
- Math 103: Algebra Methods & Functions Lecture Summer 2023
- Math 108: Trigonometry Lecture Summer 2022 & Summer 2023
- Math 140 Lab: Calculus for Life Scientists Fall 2023-Spring 2023
- Math 171 Global Campus: Calculus I Lecture & Lab Summer 2022

WinCompTop3 Workshop, Lausanne Switzerland

July 17-21 2023

Research Intensive

- Work in a small research group for one week on an applied topology project and present a progress report. Gain coding, collaboration, and proof-writing experience.
- Paper: *Topological Approaches to Define Fractal Dimensions for Networks* by Nina Otter, Maria Antonietta Pascali, Rayna Andreeva, Haydee Peruyo, & Elizabeth Thompson (in progress)
- Objectives: Summarize how topological approaches have been used on graphs ignoring their structure. Determine if complex networks have self-similar structure by proving the existence of a power-law relationship between their fractal dimension and persistence magnitude.

PROGRAMMING LANGUAGES

R, Matlab, Python

EDUCATION

PhD in Mathematics, Washington State University

2021-Present

BS in Mathematics & Secondary Education, Linfield University

2017-2021