

ERIC COCHRAN

CURRICULUM VITAE

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Syracuse University
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EDUCATION

Syracuse University <i>Ph.D., Mathematics</i> <i>Advisor: William Wylie</i>	Expected May 2026
Syracuse University <i>M.S., Mathematics</i>	May 2022
Johns Hopkins University <i>B.S., Computer Science; M.A., Mathematics</i>	May 2020

PREPRINTS AND PUBLICATIONS

1. Killing fields on compact m -quasi-Einstein manifolds. Proc. Amer. Math. Soc. **153** (2025), pp. 841-849.

HONORS, AWARDS, AND GRANTS

- 2025 Summer Dissertation Fellowship *Summer 2025*
Awarded to 30-35 outstanding doctoral students by Syracuse University per year to allow students to work on thesis research
- PAC Grant *January 2025*
Awarded by the Syracuse University Graduate Student Organization to graduate students presenting original research at academic conferences

CONFERENCE AND COLLOQUIUM TALKS

- AMS Central Sectional Meeting, St. Louis, MO *October 2025*
Special Session on Riemannian Geometry and Symmetry
Title: Closed m -quasi Einstein manifolds of constant scalar curvature
- †Math Graduate Organization Colloquium, Syracuse University. *April 2024*
Title: Relativity and Near Horizon Geometries
- Joint Math Meetings, Seattle, WA *January 2025*
AMS Special Session on Geometric PDE and Mathematical Physics
Title: Killing Fields on Compact m -quasi Einstein Manifolds
- New York State Regional Graduate Mathematics Conference, Syracuse University. *April 2024*
Title: Killing Fields on Compact m -quasi Einstein Manifolds
- †Math Graduate Organization Colloquium, Syracuse University. *April 2024*
Title: What is Curvature?

†Expository

MENTORING

Directed Reading Program

Syracuse University

Mentored undergraduate students on semester-long independent study projects which fall outside the typical curriculum at Syracuse University

- Project: Automata Theory *Spring 2022*
Mentee: Athanasios Hadjidimoulas
- Project: Integration on Manifolds *Fall 2023*
Mentee: Aksel Malatak
- Project: Minimal Surfaces *Spring 2025*
Mentee: Keval Mehta

Peer Mentoring Program

Fall 2023, Spring 2024

Syracuse University

Mentored first-year graduate students in the mathematics department by meeting several times over the course of each semester to discuss adjusting to graduate school

TEACHING

Syracuse University

Served as the instructor of record for the following courses:

- MAT 285 (Calculus I for Life Sciences), *Spring 2022*
- MAT 295 (Calculus I), *Summer 2022, Fall 2023, Spring 2024*
- MAT 296 (Calculus II), *Fall 2025*
- MAT 397 (Calculus III), *Summer 2023*

Served as a recitation leader for the following courses:

- MAT 221 (Probability and Statistics I), *Fall 2020*
- MAT 284 (Business Calculus), *Spring 2021*
- MAT 295 (Calculus I), *Fall 2021*
- MAT 296 (Calculus II), *Fall 2022, Spring 2023*
- MAT 397 (Calculus III), *Fall 2024, Spring 2025*

Johns Hopkins University

Served as a recitation leader for the following courses:

- AS.110.106 (Calculus I for Biological Sciences), *Fall 2019, Spring 2020*
- AS.110.107 (Calculus II for Biological Sciences), *Spring 2019*
- AS.110.201 (Linear Algebra), *Fall 2018*

CONFERENCES AND WORKSHOPS ATTENDED

- Geometrical Aspects of Mathematical Relativity Masterclass, *June 2025*
University of Copenhagen
- Joint Math Meetings, Seattle, WA *January 2025*

- Kansas Geometric Analysis Conference, Wichita State University. *April 2024*
- Graduate Student Topology and Geometry Conference, Michigan State University. *April 2024*
- Topics in Geometric Flows and Minimal Surfaces, SLMath, St. Mary's College. *June 2023*
- Graduate Student Conference in Algebra, Geometry, and Topology, Temple University. *May 2023*
- New York State Regional Graduate Mathematics Conference, Syracuse University. *April 2023*
- 3rd Upstate New York Topology Seminar, Syracuse University. *October 2022*
- New York State Regional Graduate Mathematics Conference, Syracuse University. *April 2022*