

# Curriculum Vitae

James A. Marshall Reber<sup>†</sup>

## PERSONAL DATA

EMAIL: marshallreber.1@buckeyemail.osu.edu  
WEBSITE: <https://marshareb.github.io>

## EDUCATION

2019 - Now	PH.D. CANDIDATE IN MATHEMATICS <b>Ohio State University</b> , Columbus, OH ADVISOR: Andrey Gogolev EXPECTED GRADUATION: June, 2025
2015 - 2019	BACHELOR OF SCIENCE IN MATHEMATICS AND STATISTICS <b>Purdue University</b> , West Lafayette, IN ADVISOR: David McReynolds

## REFEREED PAPERS

2024	A COUNTEREXAMPLE TO MARKED LENGTH SPECTRUM SEMI-RIGIDITY (with Andrey Gogolev) - To appear in "Groups, Geometry, and Dynamics." - Preprint available at arXiv:2309.10882.
2024	MAGNETIC FLATNESS AND E. HOPF'S THEOREM FOR MAGNETIC SYSTEMS (with Valerio Assenza and Ivo Terek) - To appear in "Communications in Mathematical Physics." - Preprint available at arXiv:2404.17726.
2024	A POSITIVE PROPORTION LIVSHITS THEOREM (with Caleb Dilsavor) - Proceedings of the American Mathematical Society, (152) 11, 4729–4744.
2024	CODAZZI TENSOR FIELDS IN REDUCTIVE HOMOGENEOUS SPACES (with Ivo Terek) - Results in Mathematics, (4) 79, 137.
2023	DEFORMATIVE MAGNETIC MARKED LENGTH SPECTRUM RIGIDITY - Bulletin of the London Mathematical Society, (6) 55, 3077–3096.

## PREPRINTS

2024	MARKED LENGTH SPECTRUM RIGIDITY FOR ANOSOV MAGNETIC SURFACES (with Valerio Assenza, Jacopo de Simoi, and Ivo Terek) - Preprint available at arXiv:2409.20545.
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## RECENT TALKS AND POSTERS

2024	OSU ERGODIC THEORY SEMINAR (TALK)
2024	NORTHWESTERN NUET SUMMER SCHOOL (POSTER)
2024	PENN STATE DYNAMICS WORKING SEMINAR (TALK)
2024	MARYLAND – PENN STATE SEMIANNUAL WORKSHOP (TALK)
2024	MARYLAND DYNAMICS STUDENTS DAYS (TALK)
2023	MARYLAND – PENN STATE SEMIANNUAL WORKSHOP (POSTER)
2023	PURDUE GEOMETRY AND GEOMETRIC ANALYSIS SEMINAR (TALK)
2023	NORTHWESTERN RTG DYNAMICS SUMMER SCHOOL (TALK)
2023	MARYLAND SUMMER SCHOOL ON PARTIAL HYPERBOLICITY (TALK)
2022	METRIC GEOMETRY AND GGT STUDENT SEMINAR (TALK)
2022	IUPUI DYNAMICS SEMINAR (TALK)
2022	MIDWEST DYNAMICAL SYSTEMS EARLY CAREER CONFERENCE (TALK)
2021	OSU STUDENT ANALYSIS SEMINAR (TALK)

<sup>†</sup>Last updated: October 22, 2024

## TEACHING

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Fall 2023	Teaching assistant for MA 1172 (Engineering Math A). - Worked under Vaishavi Sharma and James Talamo.
Fall 2022	Teaching assistant for MA 1151 (Calc. I). - Worked under Prerona Dutta.
Spring 2022	Teaching assistant for MA 1131 (Business Calc.). - Worked under Anthony Nance.
Fall 2021	Teaching assistant for MA 1151 (Calc. I). - Worked under Sujoy Mukherjee.
Spring 2021	Teaching assistant for MA 1150 (Precalc.). - Worked under Rachida Aboughazi.
Spring 2019	Teaching assistant for MA 161 (IMPACT) (Calc. II) - Worked under Theresa Anderson.
Fall 2018	Teaching assistant for MA 366 (Diff Eq.) and MA 161 (IMPACT) (Calc. II). - Worked under Plamen Stefanov and Ralph Kaufmann.
Spring 2018	Teaching assistant for MA 366 (Diff Eq.). - Worked under Johnny Brown.
Fall 2017	Grader for MA 265 (Lin. Alg.). - Worked under Ying Chen.

## OUTREACH

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### Seminars

- Organized the OSU “Student Dynamics Seminar” from Fall 2020 to Fall 2024 with Andrey Gogolev, Austin Allen, and Greg Hemenway.
- Organized the OSU “Student Geometry, Topology, and Dynamics Seminar” in Spring 2023 with Danyu Zhang and Katherine Goldman.

### Conferences

- Moderated for the “Research Opportunities in Mathematics for Underrepresented Students” at OSU in Summer 2024.
- Organized the “Midwest Dynamical Systems Early Career Conference” at OSU in Summer 2024. Joint work with Greg Hemenway, Thomas O’Hare, Austin Allen, Jacob Mazor, and Aaron Calderon.
- Moderated for the “Young Mathematician’s Conference” at OSU in Fall 2021.

### Undergraduate Outreach

- Served on the organizing committee for the OSU “Directed Reading Program” from Fall 2022 to Fall 2024.
- Participated in the OSU “Cycle” program from Fall 2022 to Spring 2023. Mentored Simiao Zhao, Xiaojia Yu, and Yumin Shen. The project with Yumin is “Anosov Magnetic Flows on Surfaces” (arXiv:2406.18735).
- Participated in the OSU “Directed Reading Program” in Spring 2022, Fall 2022, and Fall 2024. Mentored Tyler Pondel, Ryan Hardig, Yuchen Zhao, and Ethan Xiao.

### Other

- Served on the Graduate Studies Committee in Fall 2024.
- Refereed for the Journal of the European Mathematical Society.
- Participated in the “GMS Minicourse” program in Summer 2022. Lead a three week course on hyperbolic dynamics.

## AWARDS, FELLOWSHIPS, AND SCHOLARSHIPS

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2024	PHIL-HUNEKE EXCELLENCE IN TEACHING FINALIST
2024	SPECIAL GRADUATE RESEARCH ASSIGNMENT
2023	SPECIAL GRADUATE RESEARCH ASSIGNMENT
2019	DISTINGUISHED UNIVERSITY FELLOWSHIP