Curriculum Vitae

James A. Marshall Reber*

Personal Data

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Education

2019 - Now	Ph.D. Candidate in Mathematics **Ohio State University**, Columbus, OH Advisor: Andrey Gogolev
2015 - 2019	Bachelor of Science in Mathematics and Statistics **Purdue University**, West Lafayette, IN Advisor: David McReynolds

Papers

2022	Deformative Magnetic Marked Length Spectrum Rigidity - To appear in the Bulletin of the London Mathematical Society.

Preprints

2023	Codazzi tensor fields in reductive homogeneous spaces (with Ivo Terek) - Submitted. Preprint available at arXiv:2306.07444
2023	A positive proportion Livshits theorem (with Caleb Dilsavor) - Submitted. Preprint available at arXiv:2304.01372.

Talks

2023	Purdue Geometry and Geometric Analysis Seminar - TBD.
2023	Northwestern RTG Dynamics Summer School - Presented on the positive proportion Livshits theorem.
2023	Maryland Summer School on Partial Hyperbolicity - Presented on the positive proportion Livshits theorem.
2023	OSU Student Dynamics Seminar - Presented on Livshits' theorem and its generalizations.
2023	OSU Student Geometry, Topology, and Dynamics Seminar - Presented a survey on entropy rigidity.
2022	Metric Geometry/GGT Student Seminar - Presented a survey on the Weil-Petersson metric.
2022	IUPUI Dynamics Seminar - Presented my work on magnetic marked length spectrum rigidity.

*Last updated: August 22, 2023

2022	Midwest Dynamical Systems Early Career Conference - Gave a lightning talk on marked length spectrum rigidity.
2021	OSU Student Analysis Seminar - Presented on Livshits' theorem and its applications.
2021	OSU Smooth Ergodic Theory Student Seminar - Presented a survey on dynamical coherence.
2020	OSU Ergodic Theory and Combinatorial Number Theory Seminar - Presented a survey on the Hopf argument.
2018	Advances in Interdisciplinary Statistics and Combinatorics - Presented on my work on bounding mixing times for various combinatorial objects.
2018	Indiana Undergraduate Mathematics Research Conference - Presented on my work on bounding mixing times for various combinatorial objects.

Teaching

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.
Fall 2020	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

Fall 2023	Organized the OSU Student Smooth Dynamics Learning Seminar - Joint work with Andrey Gogolev and Austin Allen.
Spring 2023	Organized the OSU Student Geometry, Topology, and Dynamics Seminar. - Joint work with Danyu Zhang and Alexander Goldman.
Spring 2023	Organized the OSU Student Smooth Dynamics Learning Seminar - Joint work with Andrey Gogolev.

Spring 2023	Participated in the OSU Cycle program. - Mentored Yumin Shen on a project studying differential geometry and dynamics.
Fall 2022 - Fall 2023	On the organizing committee of the OSU Directed Reading Program.
Fall 2022	Participated in the OSU Directed Reading Program. - Mentored Ryan Hardig and Yuchen Zhao. We covered parts of chapters 3 through 6 of "Dynamic Data Analysis" by Ramsay and Hooker.
Summer 2022	Participated in the GMS Minicourse program. - Lead a three week course on hyperbolic dynamics.
Spring 2022	Participated in the OSU Cycle program. - Mentored Simiao Zhao and Xiaojia Yu on a project studying the SIR model.
Spring 2022	Participated in the OSU Directed Reading Program. - Mentored Tyler Pondel on a project studying dynamics.
Fall 2021	Participated in the Young Mathematician's Conference at OSU.
Fall 2021	Participated in the OSU Cycle program.
Fall 2020 - Spring 2021	Organized the OSU Smooth Dynamics Learning Seminar. - Joint work with Andrey Gogolev.

Other outreach includes:

- Refereeing for the Journal of the European Mathematical Society (2023).

Awards, Fellowships, and Scholarships

2023	Special Graduate Research Assignment
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2019	Distinguished University Fellowship
2018	Junior Outstanding Student Award
2018	Jerison Memorial Award in Analysis
2017	Andris A. Zoltners Math Scholarship
2017	Schenkman Memorial Award in Algebra
2016	Virginia Mashin Math Scholarship
2016	Freshman Outstanding Student Award
2015	Presidential Scholar
2015	Lilly Scholar
2015	TG Alford Alumni Scholarship
2015	Arthur Rosenthal Scholarship
2015	Robert and Marcella Phillips Scholarship