Sam Freedman

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Citizenship: United States

Research Interests

Translation surfaces; Teichmüller dynamics; SageMath programming

Employment

University of Chicago, Chicago, IL — Sept 2024–present
L.E. Dickson Instructor, Department of Mathematics

Education

Brown University — Providence, RI
Ph.D. in Mathematics, May 2024 Advisor: Jeremy Kahn
Sc.M. in Mathematics, May 2020

University of Michigan — Ann Arbor, MI
B.S. in Mathematics, High Honors, May 2018 Minor in Computer Science

Publications

1. T. Lucas and S. Freedman, "Veech fibrations," to appear in *Algebr. Geom. Topol.* (2025). `arXiv:2310.02325`
2. J. Boulanger and S. Freedman, "There are no primitive Teichmüller curves in Prym(2,2)," *C. R. Math.* 362 (2024). `doi:10.5802/crmath.551`
3. S. Freedman, "Periodic points of Prym eigenforms," *J. Mod. Dyn.* 20 (2024). `doi:10.3934/jmd.2024004`
4. Z. Chowdhury, S. Freedman, *et al.*, "Computing periodic points on Veech surfaces," *Geom. Dedicata* 217 (2023). `doi:10.1007/s10711-023-00804-z`
5. J. Hlavinka, S. Kannan, and S. Freedman, "Automorphisms of tropical Hassett spaces," *Port. Math.* 79 (2022). `doi:10.4171/pm/2075`

Preprints

- S. Freedman and B. Zykoski, "Convex iso-Delaunay regions in strata of translation surfaces," submitted, Sept 2025. `arXiv:2509.19550`

Selected Talks

- AMS Central Sectional, Saint Louis University, Oct 2025

- Dynamics Seminar, Northwestern University, Feb 2025
- Dynamics Seminar, University of Bristol, Sept 2024
- Geometry/Topology Seminar, CUNY, May 2024
- Geometry/Topology Seminar, Indiana University, Apr 2024
- Group Actions Seminar, UCSD, Mar 2024
- Geometry/Topology Seminar, Yale, Feb 2024

Teaching

University of Chicago

- Honors Calculus I (Math 161), Autumn 2025, Instructor
- Honors Calculus III (Math 163), Spring 2025, Instructor
- Honors Calculus II (Math 162), Winter 2025, Instructor
- Mathematical Methods in the Physical Sciences (Math 184), Winter 2025, Instructor
- Honors Calculus I (Math 161), Autumn 2024, Instructor

Brown University

- Instructor/TA II and TA, 2019–2024: Math 520 (Spring 2024, Spring 2023); Math 200 (Fall 2023, Fall 2022); Math 190 (Fall 2021); Math 100 (Winter 2021, Fall 2019); Math 90 (Winter 2020).

Honors and Grants

- Excellence in Teaching Award, Brown University Math Dept., Aug 2022
- Junior Scientific Visibility Program Grant, FMJH, Mar 2022

Service and Mentoring

- Mentor, Morehouse/Spelman DRP, Fall 2024
- Organizer, Brown Horizons Seminar, 2023–2024
- Organizer & SAO Liaison, Brown Math Circle, 2019–2024
- Directed Reading Program mentor, Brown University, 2020–2022
- BUMP co-organizer and mentor (Group 5), Brown University, Summer 2020

Professional Activities

- Refereeing: *Mathematische Zeitschrift*; *Discrete and Continuous Dynamical Systems*; *IMRN*