

# Henry Talbott

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**Research Interests:** Additive combinatorics, arithmetic combinatorics, geometric group theory.

## **Education**

**University of Michigan**, Ph.D. student (Mathematics), 2021-present

Advisor: Alex Wright

**Brown University**, B.S. with Honors, *magna cum laude*, 2017-2021

Thesis advisor: Richard Schwartz

## **Awards & Fellowships**

National Science Foundation Graduate Research Fellowship, 2023-present

## **Publications**

Blum, T., Doyle, J.R., Hyde, T., Kelln, C., & Talbott, H. (2022). “Dynamical Moduli Spaces and Polynomial Endomorphisms of Configurations.” *Arnold Math J.* (published electronically).

Talbott, H. (2021). “Disjointness of Linear Fractional Actions on Serre Trees,” *Rose-Hulman Undergraduate Mathematics Journal*. Vol. 22: Iss. 1, Article 6.

## **Employment and Teaching Experience**

**Graduate Student Instructor**, University of Michigan, September 2021-May 2023

Courses taught: Math 115 (Calculus I), Math 105 (Precalculus)

**Teaching Assistant (Mathematics)**, Brown University, January 2019-May 2021

**Residential Peer Leader**, Brown University, August 2018-May 2021

**Residential Counselor**, Stanford Pre-Collegiate Studies, June-August 2018

## **Service**

**University of Michigan Undergraduate Directed Reading Program in Mathematics**, September 2022-Present

**Rwandan Math Bridges**, April 2022-Present

**Math Corps Tutoring at the University of Michigan**, February 2022-Present

**Brown Math Circle**, November 2020-May 2021

**Symposium for Undergraduates in the Mathematical Sciences Coordinating Committee, October 2020-March 2021**

### **Presentations**

Talbott, H. (2020, August). Disjointness of actions of  $SL_2(\mathbb{Q}_2)$  and  $SL_2(F_2((x)))$  on Serre trees. Young Mathematicians Conference, Ohio State University, Columbus, OH (virtual).

Blum, T., Kelln, C., & Talbott, H. (2020, January). Unlikely intersections and portraits of dynamical semigroups. Joint Mathematics Meetings, Special Session on Research in Mathematics by Undergraduates, Denver, CO.

Blum, T., Kelln, C., & Talbott, H. (2019, November). Unlikely intersections and portraits of dynamical semigroups. Undergraduate Mathematics Symposium, University of Illinois at Chicago, Chicago, IL.

Blum, T., Kelln, C., & Talbott, H. (2019, August). Unlikely intersections and portraits of dynamical semigroups. Young Mathematicians Conference, Ohio State University, Columbus, OH.

### **Workshops Attended**

(2023, June). Geometry and Spectra of Random Hyperbolic Surfaces, University of Montreal, Montreal, Canada.

(2023, February). Workshop on Dynamics, Discrete Analysis, and Multiplicative Number Theory, Institute for Advanced Study, Princeton, NJ.

(2022, July). Michigan Research Experience for Graduates, University of Michigan, MI (virtual). Topic: Geometric Invariant Theory.

(2021, July). Michigan Research Experience for Graduates, University of Michigan, MI (virtual). Topic: Generalized Catalan Numbers.

### **Conferences Attended**

(2023, June). Nilpotent Structures in Topological Dynamics, Ergodic Theory, and Combinatorics, Polish Institute of Mathematics, Będlewo, Poland.

(2022, August). Modular Forms in Number Theory and Beyond, University of Bielefeld, Bielefeld, Germany.

(2022, August). ANTEATER conference in analytic number theory, University of California, Irvine, Irvine, CA.

(2022, July). Thematic Program in  $p$ -Adic L-Functions and Eigenvarieties, University of Notre Dame, South Bend, IN.

(2021, January). Joint Mathematics Meetings (virtual).

(2020, August). Young Mathematicians Conference, Ohio State University, Columbus, OH (virtual).

(2020, March). Symposium for Undergraduates in the Mathematical Sciences, Brown University, Providence, RI.

(2020, January). Joint Mathematics Meetings, Denver, CO.

(2019, November). Undergraduate Mathematics Symposium, University of Illinois at Chicago, Chicago, IL.

(2019, September). Horizons Seminar on Diversity in Mathematics, Brown University, Providence, RI.

**Programming Skills**

Python (including SciPy and Keras), SageMath, Julia, LaTeX

**Professional Affiliations**

American Mathematical Society