

Jonah Mendel

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Education

Rice University

Candidate for Doctor of Philosophy in Mathematics
Advisor: Alan Reid

Houston, TX
August 2024 – Present

Brown University

Bachelor of Science in Mathematics

Providence, RI
September 2019 – May 2024

Research Interests

Quaternion algebras, arithmetic groups, hyperbolic geometry, profinite rigidity

Manuscripts

S-arithmetic groups acting simply transitively on products of Bruhat–Tits trees with Jiahui Yu. In preparation.

Lattices in products of trees and Mumford surfaces with Alina Vdovina and Jakob Stix. In preparation.

Teaching Experience

Rice University

Graduate Teaching Assistant

Houston, TX
Fall 2024 – Present

- Instructor, MATH 355: Linear Algebra.
- Teaching Assistant, MATH 365: Number Theory.
- Mentor, Directed Reading Program.

Brown University

Undergraduate Teaching Assistant and Grader

Providence, RI
January 2022 – December 2023

- Fall 2023: Teaching Assistant, MATH 1560: Number Theory.
- Spring 2023: Teaching Assistant, MATH 500: Linear Algebra.
- Fall 2022: Consultant, Math Resource Center.
- Spring 2022: Grader, MATH 200: Multivariable Calculus.

Program in Mathematics for Young Scientists (PROMYS)

Counselor

Boston, MA
June – August 2023

- Mentored high school students through challenging number theory problems in an intensive six-week program.
- Graded daily problem sets and presented talks on number theory and hyperbolic geometry.
- Delivered an end-of-summer lecture on the aperiodic monotile to the entire camp.

Curious Cardinals*Mathematics Tutor*Virtual
December 2020 – December 2023

- Provided weekly one-on-one tutoring in mathematics, including Algebra I/II, geometry, precalculus, and calculus, to middle and high school students.

Honors and Awards

Bennett Prize, Brown University

Spring 2024

Outreach and Other Experience

Smithsonian National Air and Space Museum*Explainer Program*Washington, D.C.
June 2018 – April 2021

- Presented demonstrations on physics and aerospace topics to museum visitors.
- Facilitated interactive exhibits on mechanics, astrophysics, and spectroscopy.

Husch Vineyards and Winery*Harvest Intern*Ukiah, CA
August – October 2020**FIRST Robotics Team 1389***Mechanical/Design Lead*Bethesda, MD
Spring 2018 – Spring 2019