

STEVEN CREECH

steven_creech@brown.edu

EDUCATION

Brown University

PhD in Mathematics

(Masters awarded in Spring 2022)

Fall 2020 - Spring 2025 (Expected)

Advisors: Jeff Hoffstein, Junehyuk Jung

Georgia Institute of Technology

Bachelor of Science in Mathematics with a Concentration in Pure Math Undergraduate

Overall GPA: 3.93/4

Major GPA: 4.0/4.0

Fall 2016 - Spring 2020

PAPERS

1. “A Formula For the Number of k -almost Primes”. Preprint: <https://arxiv.org/abs/2310.14989>
2. “A Converse Theorem in Half-Integral Weight”. With Henry Twiss. Preprint: <https://arxiv.org/abs/2306.02872>
3. “Limits and Colimits in the Category of Pastures”. Preprint: <https://arxiv.org/abs/2103.08655>
4. “Prym–Brill–Noether loci of special curves”. With Yoav Len, Caelan Ritter, Derek Wu. In International Mathematics Research notices, rnaa207.
5. “Extensions of Hyperfields”. Preprint: arxiv.org/abs/1912.05919.

CONFERENCE PRESENTATIONS

2023 Palmetto Number Theory Series XXXVI, Talk, “A Converse Theorem in Half-Integral Weights”

2023 Maine-Québec Number Theory Conference, Talk, “Explicit Zero Free Regions of Automorphic L -Functions”

2022 AMS New England Graduate Student Conference, Talk, “Prym Tableau”

2020 Joint Mathematics Meeting, Poster, “Polynomials Over Hyperfields” (Outstanding Poster Award)

2019, Georgia Tech Algebra Seminar, Joint Talk with Derek Wu, “Prym–Brill–Noether Loci of Special Curves”

2019 Young Mathematicians Conference, Joint Talk with Caelan Ritter and Derek Wu, “Prym Varieties of Folded k -gonal Chains of Loops”

2019 Young Mathematicians Conference, Talk, “Hyperfield Extensions”

2019 National Conference on Undergraduate Research, Poster, “On Polynomials Over Hyperfields”

AWARDS SCHOLARSHIPS

Georgia Institute of Technology Undergraduate Mathematics Prize (2019)

Mehta Phingbodhipakkiya Undergraduate Memorial Scholarship (2019)

Zell Miller Scholarship (2016-2020)

TEACHING EXPERIENCE

Lecturer

Brown University

Linear Algebra (Spring 2024)

Calculus 2 (Spring 2023)

- Calculus 1 (Fall 2022)

Teaching Assistant

Brown University

- Calculus 2 (Fall 2023)
- Calculus 3 (Spring 2022)
- Calculus 2 (Fall 2021)

Directed Reading Program

Brown University

- Representation Theory (Fall 2023)
- Geometry of Numbers (Fall 2022)
- Quadratic Forms (Spring 2022)
- Sheaf Cohomology (Fall 2021)
- Combinatorics (Spring 2021)
- Tropical Geometry (Fall 2020)

Teaching Assistant

Georgia Tech School of Mathematics

- Calculus for the Life Sciences (Spring 2020)
- Introduction to Linear Algebra (Fall 2019)
- Introduction to Discrete Mathematics (Spring 2019)
- Introduction to Linear Algebra (Fall 2018)

Georgia Tech School of Mathematics

Grader

- A Second Course in Linear Algebra (Spring 2020)
- A Second Course in Linear Algebra (Fall 2019)
- Combinatorial Analysis (Spring 2019)
- A Second Course in Linear Algebra (Fall 2018)
- Applied Combinatorics (Spring 2018)
- Applied Combinatorics (Fall 2017)

Ross Mathematics Program

Counselor/Lecture Assistant/Lecturer

- Gave an advanced lecture course on quadratic forms (2023)
- Served as a lecture assistant for Provability Course (2022)
- Served as a lecture assistant for Rational Points on Curves course (2021)
- Served as a lecture assistant for Geometric Group Theory course (2020)
- Served as a lecture assistant for Professor Daniel Shapiro's Sums of Squares course (2018)

OUTREACH & LEADERSHIP

AMS New England Graduate Student Seminar
Organizer

Spring 2023

Brown Graduate Student Seminar
Organizer

Fall 2021-Present

Club Math
President/Officer

Spring 2017- Spring 2020

Sci-Cycle
Organizer

Fall 2019
Advisor: Professor Evans Harrell

National Mathematics Festival
Volunteer

Summer 2019

Mathapalooza Exhibit
Lead Student Organizer

Spring 2019
Advisor: Professor Evans Harrell

Seven Bridges of Königsberg Show
Lead Student Organizer

Fall 2018
Advisor: Professor Evans Harrell