

# STEVEN CREECH

steven\_creech@brown.edu

## EDUCATION

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### **Brown University**

PhD in Mathematics

(Masters awarded in Spring 2022)

*Fall 2020 - Spring 2025 (Expected)*

### **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

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

## CONFERENCE PRESENTATIONS

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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

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Georgia Institute of Technology Undergraduate Mathematics Prize (2019)

Mehta Phingbodhipakkiya Undergraduate Memorial Scholarship (2019)

Zell Miller Scholarship (2016-2020)

## TEACHING EXPERIENCE

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### **Lecturer**

*Brown University*

- Calculus 2 (Spring 2023)
- Calculus 1 (Fall 2022)

### **Teaching Assistant**

*Brown University*

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

### **Directed Reading Program**

*Brown University*

- 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

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**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*