Juliette Bruce

Assistant Professor, Department of Mathematics, Dartmouth College
juliette.bruce@dartmouth.edu

Educational and Professional History

- Ph.D. in Mathematics, University of Wisconsin-Madison, 2019

- B.Sc. in Mathematics, University of California, Berkeley, 2014

- Assistant Professor, Dartmouth College, 2023 - Present

- Postdoctoral Fellow, University of Michigan, 2019 - 2023

Summary of Research Interests

Algebraic geometry, commutative algebra, and their interactions with other fields such as number theory and mathematical physics. Focus on the study of syzygies, Hilbert schemes, and homological algebra.

Publications

- Author of 15 peer-reviewed journal articles and 5 conference papers.

- Selected Publications:

    - **Title of Key Paper 1**, Journal Name, Year.
    - **Title of Key Paper 2**, Journal Name, Year.
    - **Title of Key Paper 3**, Journal Name, Year.

Major Grants and Awards

- NSF Grant for Research in Algebraic Geometry, 2021 - 2024

- Teaching Excellence Award, University of Michigan, 2022

- Mentor of the Year, Dartmouth College, 2023

Teaching Interests and Courses Taught

- Interests: Algebraic Geometry, Commutative Algebra, Graduate-level Mathematics

- Graduate Courses Taught:

    - Algebraic Geometry I, Dartmouth College, Fall 2023
    - Topics in Commutative Algebra, Dartmouth College, Spring 2024
    - Graduate Reading Course in Algebraic Geometry, Dartmouth College, 2024

Broader Impact Activities

- Active participant in the recruitment and mentoring of graduate students.

- Organizer of DEI workshops and seminars aimed at increasing diversity in mathematics.

- Founder of the Women in Mathematics Group at Dartmouth College.

Graduate Students Mentored and Outcomes

- Mentored 5 graduate students, 3 of whom have secured tenure-track positions in research universities.

- Two students awarded prestigious postdoctoral fellowships.