

Our Program

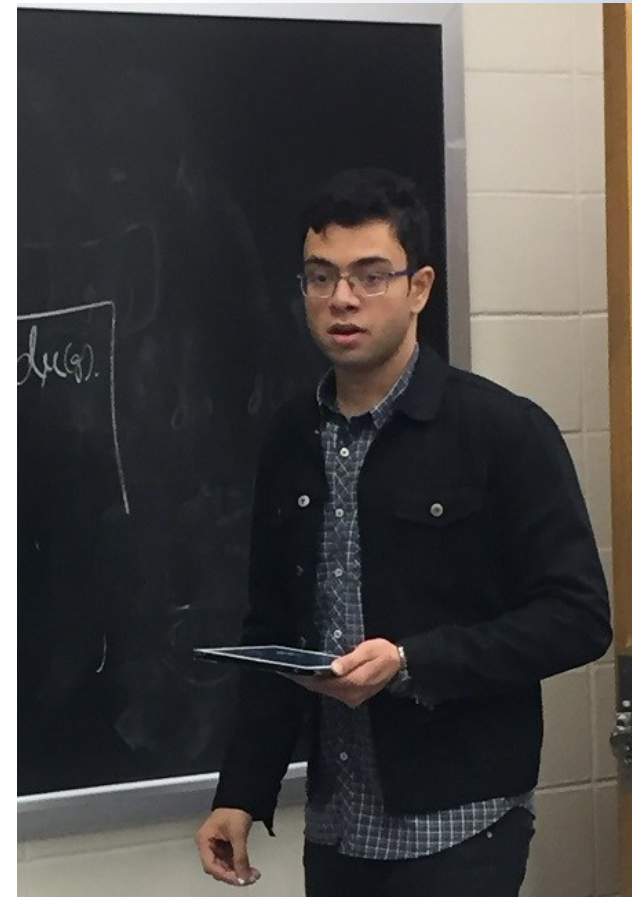
Named each year among the top graduate programs in Mathematics by US News and World Reports, our PhD program is small and selective and leads to a doctorate degree in mathematics. We recruit outstanding students from around the world and train them to be effective teachers and cutting-edge researchers. You will find our strengths in algebra, analysis, topology, number theory, combinatorics, applied mathematics and mathematical physics.

About Our Faculty

Our faculty includes five Fellows of the American Mathematical Society (AMS), three Simons Fellows, a Guggenheim Fellowship recipient as well as a past President of the American Mathematical Society (AMS). Two math faculty members have recently received the Dean's Mentoring Award for "outstanding ability as a mentor" in the supervision of graduate students.

About Our Alumni

Alumni of the PhD program include the winners of the 2022 Bhatnagar Prize, the 2021 Veblen Prize, the 2019 Abel Prize, the 2017 Shaw Prize, and the 2013 Alan Turing Award.



How we prepare our PhD students for academic and industry careers

Through courses in algebra, topology, geometry and analysis as well as elective courses, students develop broad and deep knowledge.

Opportunities for students to develop professionally by attending seminars and conferences at other schools with \$500 a year available to each PhD student to cover travel costs.

Advanced reading courses, seminars and major and minor exams help students learn how to present mathematical materials and their own results in particular.

Through dissertation writing, students attain research expertise and complete a significant body of original research.

Our structured Teaching Practicum with four semesters of undergraduate teaching strengthens instructional skills but also develops communication, organizational and leadership skills.

The Math Department is committed to fostering an inclusive community, bringing together individuals from diverse backgrounds to celebrate and expand the power of mathematical thinking. We recognize the value of having a diverse department and how individuals from different racial, ethnic, socio-economic, gender-identity and other backgrounds enrich our intellectual community. We also recognize that mathematics as a field and, more specifically, our department at Brandeis, has much work to do in the area of diversity. We invite you to view our commitments for change: <https://www.brandeis.edu/mathematics/dei/initiatives-dei.html>

Research Groups

Algebraic Geometry

An Huang

Combinatorics and Algorithms

Olivier Bernardi, An Huang, Kiyoshi Igusa

Data Science

Tyler Maunu, Thomas Fai, Promit Ghosal

Dynamical Systems

Dmitry Kleinbock, Jonathan Touboul, Yangyang Wang

Lie Groups and Representation Theory

Dmitry Kleinbock

Mathematical Biology

Thomas Fai, Jonathan Touboul, Yangyang Wang

Mathematical Physics

Promit Ghosal, An Huang, Bong Lian

Number Theory

Dmitry Kleinbock, Omer Offen

Probability and Random Matrix Theory

Olivier Bernardi, Promit Ghosal, Jonathan Touboul

Topology and Geometric Group Theory

Carolyn Abbott, Kiyoshi Igusa, Daniel Ruberman

How we prepare our MA/MS students for academic and industry careers

Through courses in algebra, topology, and analysis as well as elective courses, students develop broad and deep knowledge.

Advanced courses prepare students to apply for a PhD program in pure or applied mathematics, physics, and other sciences. Students develop competencies that lead to careers in financial analysis and data science.

MS students develop research skills through the option to write and present a thesis (with approval of the faculty).

About Brandeis

There is no other place like Brandeis. As a medium-sized private research university with global reach, we are dedicated to first-rate undergraduate and graduate education while making groundbreaking discoveries. Our 235-acre campus is located in the suburbs of Boston, a global hub for higher education and innovation. We are driven by academic excellence, a reverence for learning, and inclusivity — values in keeping with the University.

Its faculty includes nationally and internationally recognized teachers, scholars and researchers. Brandeis supports innovative and exciting programs of learning and research that emphasize an interdisciplinary approach to knowledge for problems facing the world in the 21st century.

The Graduate School of Arts and Sciences

The Graduate School of Arts and Sciences at Brandeis University is a center for pioneering investigation embedded in the cooperative environment of a student-centered, medium-size research university. We are driven by academic excellence, a reverence for learning, and inclusivity — values in keeping with the history of the University. The smaller size of our doctoral, master's and postbaccalaureate programs enables scholars to build close relationships with our world-class faculty and conduct interdisciplinary research across traditional academic boundaries.

For additional information about our doctoral, master's and postbaccalaureate program, as well as contact information and how to apply, please visit <https://www.brandeis.edu/mathematics/>

For additional information on the graduate programs in Mathematics contact:

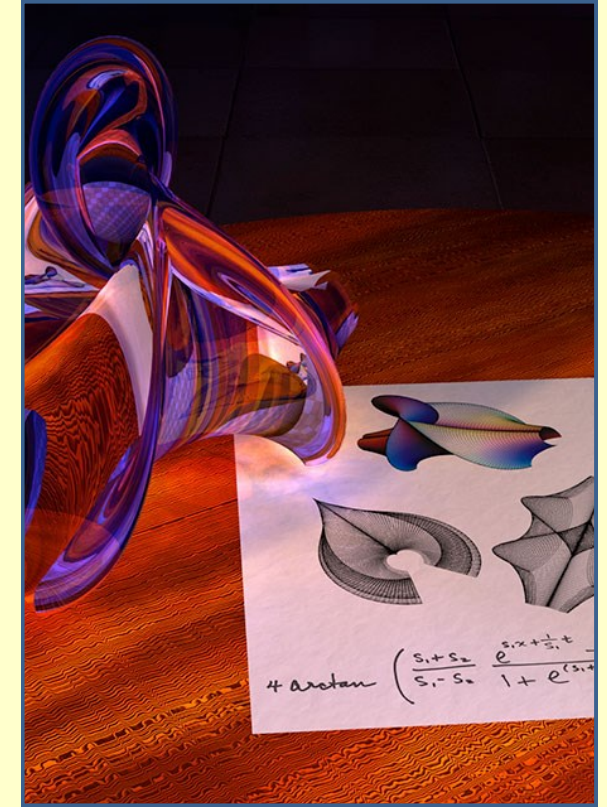
Professor Thomas Fai
Director of Graduate Study
tfai@brandeis.edu

Anna Esposito
Academic Administrator:
scigradoffice@brandeis.edu

Visit our website:
<https://www.brandeis.edu/mathematics/>

Brandeis University endeavors to foster a just and inclusive campus culture that embraces the diversity of the larger society .

415 South Street
Waltham, Massachusetts
02453



Brandeis University

Mathematics

Brandeis University

About Our Students

To complete the PhD program, students typically take five years. Students complete seven core courses in algebra, analysis and topology as well as the Second Year Seminar and Teaching Practicum. To broaden their studies, students complete the minor exam and take advanced reading courses and, to prepare for their dissertation work, they complete a major exam. Their program culminates with the defense of their dissertation.



- Doctor of Philosophy in Mathematics
- Master of Arts in Mathematics
- Master of Science in Mathematics
- Postbaccalaureate Program in Mathematics

