BOSTON COLLEGE

Morrissey College of Arts and Sciences

smallest prime divisor of n^2
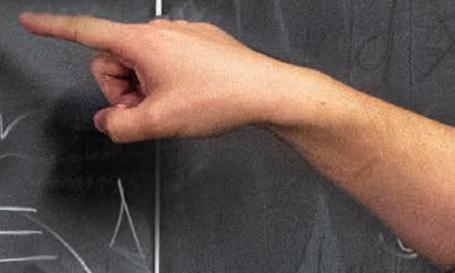
$| 4^n - 1$

$4^{p-1} - 1$ (Fermat's little thm)

$=$ the smallest positive integer

such that $4^d \equiv 1 \pmod{p}$

$\equiv 1 \pmod{p} \Rightarrow p = 3$

GRADUATE PROGRAM

Mathematics

WELCOME TO THE DEPARTMENT OF MATHEMATICS

The Department of Mathematics at Boston College seeks to advance mathematics through a commitment to excellence in research, teaching and service to the community. The faculty has a strong research reputation, with highly regarded research groups in the areas of Algebraic Geometry, Dynamics, Geometry, Number Theory, Representation Theory and Topology.

The department's Ph.D. program was launched in 2010 and now supports 25 to 30 graduate students, attracting doctoral students from top programs both nationally and internationally. Service contributions include extensive work with pre-collegiate math teachers, involvement with mathematics policy questions at the state and national levels and support for scholarship in mathematics through the organization of international scholarly meetings and the editing of high-quality journals.

As you explore Boston College, you will no doubt be impressed by the strength of our graduate programs and the depth of the resources we offer to support outstanding graduate study.

On campus, one-third of all students are graduate students; they are a vital part of the intellectual life of the university. Graduate students across all Boston College programs contribute to and benefit from the charism of a Jesuit university, combining a zest for academic achievement with a climate that fosters personal growth and a caring concern for the individual.

Our location in Boston—a world-renowned center for mathematics—also provides a vibrant intellectual climate in which our graduate students thrive.

We invite your questions and encourage you to find out more about our department at bc.edu/math and to visit our campus.

PROGRAM OVERVIEW

Ph.D. Program

The Department of Mathematics at Boston College offers a selective and focused doctoral program for talented students specializing in two broad areas of research:

Dynamics/Geometry/Topology

- Three-dimensional manifolds and their geometry
- Heegaard-Floer and Khovanov homology
- Hyperbolic geometry
- Kleinian groups
- Knot theory
- Dynamical systems
- Geometry of moduli spaces

CONTENTS

**Number Theory/Algebraic Geometry/
Representation Theory**

❖ Automorphic forms
❖ Birational Geometry
❖ Cohomology of arithmetic groups
❖ Geometric invariant theory
❖ Geometry of Shimura varieties
❖ Local Langlands correspondence
❖ Logarithmic geometry
❖ Multiple Dirichlet series
❖ Representation theory
❖ Spectral geometry

REQUIREMENTS

Residency

A student must be in residence in the Department
of Mathematics at Boston College for at least two
consecutive semesters of one academic year with full-
time (two courses per semester) registration.

Coursework

Students must complete at least 50 credit hours at
the graduate level, including the first-year courses
in Algebra, Geometry/Topology, Real and Complex
Analysis, and second-year courses such as Number
Theory, Representation Theory, Geometry or Topology.
Very well-prepared students may be allowed to skip
some or all of the first-year graduate courses and proceed
directly to advanced study.

Qualifying Examination

After the first year, students take two of the three
qualifying exams in Real and Complex Analysis, Algebra
and Topology. Well-prepared students may take these
exams earlier, upon consultation with the assistant chair
of graduate programs.

Language Examination

This exam consists of translating mathematics from
French or German into English.

Doctoral Comprehensive Examination

During the third year, the student requests that a
faculty member serve as his/her research advisor. Upon
agreement of the faculty member, the student forms
a comprehensive examination committee, consisting
of the research advisor and at least two other faculty
members. The doctoral comprehensive exam consists
of a research topic and one secondary topic, chosen by
the student in consultation with the comprehensive
examination committee. Typically, these are based on
topics courses or independent study completed by the
student in the second and third years.

Teaching

In addition to their responsibilities as teaching assistants
and teaching fellows, students participate in the
Teaching Seminar during their first two years.

Dissertation

Upon satisfactory performance in exams, the student
is admitted to candidacy for the Ph.D. and begins
research for the doctoral dissertation. The dissertation
must consist of original scholarly work. The doctoral
committee reads and evaluates the completed
dissertation and conducts an oral examination at which
the dissertation is defended in a public meeting.

Plan of Study

The typical schedule for a first-year Ph.D. student is
as follows:

Fall Semester	Spring Semester
Real Analysis	Complex Analysis
Algebra I	Algebra II
Geometry-Topology I	Geometry-Topology II
Teaching Seminar	Research Seminar

Exceptionally well-prepared students may proceed
directly to advanced study.

FACULTY PROFILES

AVNER ASH
Professor

Ph.D., Harvard University

Number Theory

JOHN BALDWIN
Professor

Ph.D., Columbia University

Low-dimensional Geometry
and Topology

JULIANA BELDING
Associate Professor
of the Practice

Ph.D., University of Maryland

Mathematics Teaching and
Learning
Teacher Education

IAN BIRINGER
Associate Professor

Ph.D., University of Chicago

Low-dimensional Geometry
and Topology

MARTIN BRIDGEMAN
Professor

Ph.D., Princeton University

Hyperbolic Geometry
Teichmüller Theory

DANIEL W. CHAMBERS
Associate Professor

Ph.D., University of Maryland

Probability
Stochastic Processes
Statistics

DAWEI CHEN
Professor

Ph.D., Harvard University

Algebraic Geometry

QILE CHEN
Associate Professor

Ph.D., Brown University

Algebraic Geometry

CHI-KEUNG CHEUNG
Associate Professor

Ph.D., University of California,
Berkeley

Complex Differential
Geometry
Several Complex Variables

MAKSYM FEDORCHUK
Professor

Ph.D., Harvard University

Algebraic Geometry

SOLOMON FRIEDBERG
James P. McIntyre Professor
of Mathematics

Ph.D., University of Chicago

Number Theory
Representation Theory

ELLEN JULIA GOLDSTEIN
Associate Professor
of the Practice

Ph.D., Tufts University

Mathematics Teaching and
Learning
Teacher Education

JOSHUA GREENE
Professor

Ph.D., Princeton University

Low-dimensional Topology

ELISENDA GRIGSBY
Professor

Ph.D., University of California,
Berkeley

Geometry
Topology
Machine Learning

ROBERT H. GROSS
Associate Professor

Ph.D., Massachusetts Institute
of Technology

Algebra
Number Theory
History of Mathematics

BENJAMIN HOWARD
Professor

Ph.D., Stanford University

Number Theory
Arithmetic Geometry

XIN JIN
Assistant Professor

Ph.D., University of California,
Berkeley

Representation Theory

DUBI KELMER
Associate Professor

Ph.D., Tel Aviv University

Number Theory
Spectral Geometry
Dynamical Systems

BRIAN LEHMANN
Associate Professor

Ph.D., Massachusetts Institute
of Technology

Algebraic Geometry

SPENCER LESLIE
Assistant Professor

Ph.D., Boston College

Number Theory
Representation Theory

TAO LI
Professor

Ph.D., California Institute
of Technology

Geometry
Topology
Knot Theory

KATHRYN LINDSEY
Assistant Professor

Ph.D., Cornell University

Dynamical Systems
Mathematics of Machine
Learning

KEERTHI MADAPUSI PERA
Associate Professor

Ph.D., The University of Chicago

Number Theory

ROBERT MEYERHOFF
Professor

Ph.D., Princeton University

Geometry
Topology

RENATO MIROLLO
Professor

Ph.D., Harvard University

Dynamical Systems

MARK REEDER
Professor

Ph.D., The Ohio State University

Lie Groups
Representation Theory

DAVID TREUMANN
Professor

Ph.D., Princeton University

Algebraic Geometry
Representation Theory

ERIKA WARD
Associate Professor
of the Practice

Ph.D., University of Kansas

Mathematics Teaching and
Learning
Teacher Education

JAMISON WOLF
Associate Professor
of the Practice

Ph.D., Tufts University

Mathematics Teaching and
Learning
Teacher Education

LIYANG ZHANG
Associate Professor
of the Practice

Ph.D., Yale University

Mathematics Teaching and
Learning
Teacher Education

SELECTED FACULTY PUBLICATIONS

Avner Ash, Vanishing of the cohomology of the rational points of a reductive Q-group in high dimensions (with A. Putman and S. Sam), *Compositio Mathematica*, 154, 1111-1130 (2018).

Avner Ash and Robert Gross, *Summing It Up: From One Plus One to Modern Number Theory,* Princeton University Press, 2016.

Avner Ash, Resolutions of the Steinberg representation for GL(n) (with P. Gunnells and M. McConnell), *Journal of Algebra*, 349, 380-390 (2012).

Avner Ash and Robert Gross, *Elliptic Tales: Curves, Counting, and Number Theory,* Princeton University Press, 2012.

John Baldwin, On the functoriality of Khovanov-Floer theories (with M. Hedden and A. Lobb), *Advances in Mathematics,* 345, 3669-3690 (2019).

John Baldwin, Naturality in sutured monopole and instanton homology (with S. Sivek), *Journal of Differential Geometry*, 100(3), 395-480 (2015).

John Baldwin, On the equivalence of Legendrian and transverse invariants in knot Floer homology (with D. Vela-Vick and V. Vertesi), *Geometry and Topology*, 17, 925-974 (2013).

Ian Biringer, Ranks of mapping tori via the curve complex (with J. Souto), *Journal für die reine und angewandte Mathematik*, 748, 153-172 (2019).

Ian Biringer, On the growth of L2-invariants for sequences of lattices in Lie groups (with M. Abert, N. Bergeron, T. Gelander, N. Nikolov, J. Raimbault and I. Samet), *Annals of Mathematics*, 185(3), 711-790 (2017).

Ian Biringer, Extending pseudo-Anosov maps to compression bodies (with J. Johnson and Y. Minsky), *Journal of Topology*, 6(4), 1019-1042 (2013).

Martin Bridgeman, Schwarzian derivatives, projective structures, and the Weil-Petersson gradient flow for renormalized volume (with J. Brock and K.Bromberg), *Duke Math Journal*, 168(5), 867-896 (2019).

Martin Bridgeman, Moments of the boundary hitting function for the geodesic flow on a hyperbolic manifold (with S.P. Tan), *Geometry and Topology*, 18(1), 491-520 (2014).

Martin Bridgeman, Orthospectra of geodesic laminations and dilogarithm identities on moduli space, *Geometry and Topology*, 15(2), 707-733 (2011).

Daniel W. Chambers, Earthquake forecasting using hidden Markov models (with J.A. Baglivo, J.E. Ebel and A.L. Kafka), *Pure and Applied Geophysics*, 169(4), 625-639 (2012).

Dawei Chen, Masur-Veech volumes and intersection theory on moduli spaces of Abelian differentials (with M. Möller, A. Sauvaget and D. Zagier), *Inventiones mathematicae*, 222(1), 283-373 (2020).

Dawei Chen, Quasimodularity and large genus limits of Siegel-Veech constants (with M. Möller and D. Zagier), *Journal of the American Mathematical Society*, 31(4), 1059–1163 (2018).

Dawei Chen, Nonvarying sums of Lyapunov exponents of Abelian differentials in low genus (with M. Möller), *Geometry and Topology*, 16, 2427-2479 (2012).

Qile Chen, Decomposition of degenerate Gromov-Witten invariants (with D. Abramovich, M. Gross and B. Siebert), *Compositio Mathematica*, 156(10), 2020-2075 (2020).

Qile Chen, Strong approximation over function fields (with Y. Zhu), *Journal of Algebraic Geometry*, 27, 703-725 (2018).

Qile Chen, Logarithmic stable maps to Deligne-Faltings pairs I, *Annals of Mathematics,* 180(2), 455-521 (2014).

Maksym Fedorchuk, Second flip in the Hassett-Keel program: a local description (with J. Alper, D. Smyth and F. van der Wyck), *Compositio Mathematica*, 153(8), 1547-1583 (2017).

Maksym Fedorchuk, GIT semistability of Hilbert points of Milnor algebras, *Mathematische Annalen*, 367(1-2), 441-460 (2017).

Maksym Fedorchuk, Finite Hilbert stability of (bi)canonical curves (with J. Alper and D. Smyth), *Inventiones mathematicae,* 191, 671-718 (2013).

Solomon Friedberg, Doubling constructions and tensor product L-functions: the linear case (with Y. Cai, D. Ginzburg and E. Kaplan), *Inventiones mathematicae*, 217(3), 985-1068 (2019).

Solomon Friedberg, Multiple Dirichlet series, L-functions and automorphic forms (co-edited with D. Bump and D. Goldfeld), *Progress in Mathematics*, Birkhäuser, 2012.

Solomon Friedberg, Weyl group multiple Dirichlet series: type A combinatorial theory (with B. Brubaker and D. Bump), *Annals of Mathematics Studies,* Princeton University Press, 2011.

Solomon Friedberg, Weyl group multiple Dirichlet series, Eisenstein series, and crystal bases (with B. Brubaker and D. Bump), *Annals of Mathematics,* 173, 1081-1120 (2011).

Joshua Greene, Alternating links and definite surfaces (with an appendix by A. Juhász and M. Lackenby), *Duke Mathematical Journal*, 166(11), 2133-2151 (2017).

Joshua Greene, The lens space realization problem, *Annals of Mathematics,* 177(2), 459-511 (2013).

Joshua Greene, Lattices, graphs, and Conway mutation, *Inventiones mathematicae,* 192, 717-750 (2013).

Elisenda Grigsby, Annular Khovanov homology and knotted Schur-Weyl representations (with A. Licata and S. Wehrli), *Compositio Mathematica*, 154(3), 459-502 (2018).

Elisenda Grigsby, Khovanov-Seidel quiver algebras and bordered Floer homology, *Selecta Mathematica,* 20(1), 1-55 (2014).

Elisenda Grigsby, On the colored Jones polynomial, sutured Floer homology, and knot Floer homology (with S. Wehrli), *Advances in Mathematics,* 223(6), 2114-2165 (2010).

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SELECTED FACULTY PUBLICATIONS

Robert Gross, Prime specialization in Genus 0 (with B. Conrad and K. Conrad), *Transactions of the American Mathematical Society,* 360, 2867-2908 (2008).

Ben Howard and Keerthi Madapusi Pera, Faltings heights of abelian varieties with complex multiplication (with F. Andreatta and E.Z. Goren), *Annals of Mathematics,* 187(2), 391-531 (2018).

Ben Howard, Complex multiplication cycles and Kudla-Rapoport divisors, *Annals of Mathematics,* 176, 1097-1171 (2012).

Ben Howard, Intersection theory on Shimura surfaces II, *Inventiones mathematicae,* 183(1), 1-77 (2011).

Xin Jin, Representing the big tilting sheaves as holomorphic Morse branes, *Advances in Mathematics,* 345, 845-860 (2019).

Xin Jin, Holomorphic lagrangian branes correspond to perverse sheaves, *Geometry and Topology,* 19(3), 1685-1735 (2015).

Dubi Kelmer, Shrinking targets for discrete time flows on hyperbolic manifolds, *Geometric and Functional Analysis,* 27(5), 1257-1287 (2017).

Dubi Kelmer, On the Pair Correlation Density for Hyperbolic Angles (with A. Kontorovich), *Duke Mathematical Journal,* 164, 473-509 (2015).

Dubi Kelmer, Arithmetic quantum unique ergodicity for symplectic linear maps of the multidimensional torus, *Annals of Mathematics,* 171(2), 815-879 (2010).

Brian Lehmann, On the geometry of thin exceptional sets in Manin's Conjecture (with S. Tanimoto), *Duke Mathematical Journal,* 166(15), 2815-2869 (2017).

Brian Lehmann, Volume-type functions for numerical cycle classes, *Duke Mathematical Journal,* 165(16), 3147-3187 (2016).

Brian Lehmann, A cone theorem for nef curves, *Journal of Algebraic Geometry,* 21, 473-493 (2012).

Spencer Leslie, Parity sheaves and Smith theory, *Journal für die reine und angewandte Mathematik (Crelle's Journal),* 777, 49-87 (2021).

Spencer Leslie, A generalized Theta lifting, CAP representations, and Arthur parameters, *Transactions of the American Mathematical Society,* 372, 5069-5121 (2019).

Tao Li, Rank and genus of 3-manifold, *Journal of the American Mathematical Society,* 26, 777-829 (2013).

Tao Li, An algorithm to determine the Heegaard genus of a 3-manifold, *Geometry and Topology,* 15(2), 1029-1106 (2011).

Tao Li, Heegaard surfaces and measured laminations, I: The Waldhausen conjecture, *Inventiones mathematicae,* 167(1), 135-177 (2007).

Kathryn Lindsey, The shape of Thurston's Master Teapot (with H. Bray, D. Davis and C. Wu), *Advances in Mathematics,* 377, 107481 (2021).

Kathryn Lindsey, Horocycle flow orbits and lattice surface characterizations (with J. Chaika), *Ergodic Theory and Dynamical Systems,* 39(6), 1441-1461 (2019).

Kathryn Lindsey, Counting invariant components of hyperelliptic translation surfaces, *Israel Journal of Mathematics,* 210, 125-146 (2015).

Keerthi Madapusi Pera, Toroidal compactifications of integral models of Shimura varieties of Hodge type, *Annales Scientifiques de l'École Normale Supérieure,* 52(2), 393-514 (2019).

Keerthi Madapusi Pera, The Tate conjecture for K3 surfaces in odd characteristic, *Inventiones mathematicae,* 201, 625-668 (2015).

Robert Meyerhoff, The maximal number of exceptional Dehn surgeries (with M. Lackenby), *Inventiones mathematicae,* 191, 341-382 (2013).

Robert Meyerhoff, Mom technology and volumes of hyperbolic 3-manifolds (with D. Gabai and P. Milley), *Commentarii Mathematici Helvetici,* 86, 145-188 (2011).

Robert Meyerhoff, Minimum volume cusped hyperbolic three-manifolds (with D. Gabai and P. Milley), *Journal of the American Mathematical Society,* 22(4), 1157-1215 (2009).

Renato Mirollo, Dynamics of the Kuramoto-Sakaguchi oscillator network with asymmetric order parameter (with B. Chen and J. Engelbrecht), *Chaos* (Editor's Pick), 29, 013126 (2019).

Renato Mirollo, Classification of attractors for coupled identical Kuramoto oscillator networks (with J. Engelbrecht), *Chaos,* 24, 013114 (2014).

Mark Reeder, Epipelagic representations and in-variant theory, *Journal of the American Mathematical Society,* 27, 437-477 (2014).

Mark Reeder, Depth-zero supercuspidal L-packets and their stability (with S. DeBacker), *Annals of Mathematics* 169(3), 795-901 (2009).

Mark Reeder, On the restriction of Deligne-Lusztig characters, *Journal of the American Mathematical Society,* 20(2), 573-602 (2007).

David Treumann, Legendrian knots and constructible sheaves (with V. Shende and E. Zaslow), *Inventiones mathematicae,* 207(3), 1031-1133 (2017).

David Treumann, Functoriality, Smith theory, and the Brauer homomorphism, (with A. Venkatesh), *Annals of Mathematics,* 183(1), 177-228 (2016).

David Treumann, A categorification of Morelli's Theorem (with B. Fang, C.-C.M. Liu and E. Zaslow), *Inventiones mathematicae,* 186(1), 79-114 (2011).

RANKINGS

Launched in 2010, the Boston College Ph.D. program has already established itself both national and internationally. In the *Shanghai Ranking,* the Boston College Department of Mathematics' world ranking is in the 76-100 group. Among U.S. private universities, the department is ranked joint 13th. In the research quality category, measuring publications in top journals, the department is ranked 41st worldwide and 11th among U.S. private universities.

In the *U.S. News & World Report* rankings of U.S. graduate schools in mathematics, Boston College is ranked 59th; in the area of algebra/number theory/algebraic geometry, it is ranked 20th.

OUTCOMES

Recent Placements

The Department of Mathematics takes an active role in helping to place its students in fulfilling academic and non-academic positions. Our students' postdoc and other academic and private sector placements have included:

Boston College

Columbia University

CUNY–Baruch College

Duke University

Facebook

Fudan University (China)

Georgia Tech

Harvard University

Lebanon Valley College

Massachusetts Institute of Technology

Michigan State University

New Mexico Tech

Penn State

Reptrak

Sidewalk Labs

Swarthmore College

Technion Israel Institute of Technology (Israel)

Tel Aviv University (Israel)

Tsinghua University (China)

University of California, Davis

University of Cambridge (UK)

University of Georgia

University of Luxembourg

University of Michigan

University of Notre Dame

University of Oregon

University of Paris-Jussieu (France)

University of Southern California

University of Sydney (Australia)

Weizmann Institute (Israel)

MORRISSEY COLLEGE OF ARTS AND SCIENCES

The oldest and largest of the University's eight schools and colleges, the Morrissey College of Arts and Sciences offers graduate programs in the humanities, social sciences and natural sciences, leading to the degrees of Doctor of Philosophy, Master of Arts and Master of Science. In addition, numerous dual-degree options are offered in cooperation with the Carroll School of Management, the Boston College Law School, the Lynch School of Education and Human Development and the School of Social Work.

With approximately 800 graduate students and nearly 500 full-time faculty, the Morrissey College of Arts and Sciences is small enough to know you as a person, but large enough to serve you and prepare you for a rewarding life and satisfying career.

Academic Resources

LECTURE SERIES AND SEMINARS

The Department of Mathematics hosts an annual Distinguished Lecturer series. The Distinguished Lecturer gives three lectures, and ample time is incorporated into the schedule to allow for interaction with students. Previous Distinguished Lecturers have included: John Conway, Ravi Vakil, Benson Farb, Peter Sarnak, Robert Ghrist, Bernd Sturmfels, Richard Evan Schwartz, Jordan Ellenberg, Amie Wilkinson, Brendan Hassett, Akshay Venkatesh and Cameron Gordon.

Boston College runs a Number Theory seminar jointly with MIT (alternating between the two schools) in which outstanding researchers from all over the country present their work in a wide range of areas of Number Theory. We also have three active research seminars in Dynamics, Geometry/Topology and Algebraic Geometry/Number Theory/Representation Theory.

TEACHING SEMINAR

Excellence in teaching is an important part of the Boston College tradition. The Department of Mathematics runs a teaching seminar in which faculty and graduate students discuss issues related to the teaching and learning of mathematics.

ANTI-RACISM SEMINAR

Members of the mathematics community at Boston College recognize that there is much to be done in moving toward inclusivity for people of color in our discipline. The Department of Mathematics hosts a regular Anti-Racism Seminar, organized by the Mathematics Anti-Racism Committee (Math ARC), a group of undergraduates, graduate students and faculty. We invite all new and current mathematicians to join us in this important work.

DEPARTMENT SOCIAL EVENTS

The Department of Mathematics looks for opportunities to enhance the interaction between faculty and graduate students: through lunch at orientation, cookies and tea after the Teaching Seminar, the annual teaching assistant appreciation luncheon, the beginning-of-term brunch and other activities.

BOSTON AREA CONSORTIUM

The Boston Area Consortium allows graduate students to cross-register for courses at Boston University, Brandeis University and Tufts University.

BOSTON COLLEGE LIBRARIES

The University is home to eight libraries, containing nearly 3 million volumes; more than 700 manuscript collections, including music, photos, art and artifacts; 625,000 e-books; and more than 600 electronic databases. O'Neill Library, Boston College's main library, offers subject-specialist librarians to help with research, to set up alerts to publications in areas of interest and to answer any research- and library-related questions.

THE BOSTON LIBRARY CONSORTIUM

The Boston Library Consortium allows Boston College students access to millions of volumes and other services at 19 area institutions in addition to the world-class resources available through the Boston College Library System.

STUDENT LIFE AND CAMPUS RESOURCES

Boston College is located on the edge of one of the world's most vibrant cities. Just six miles from downtown Boston—an exciting and dynamic place to live and learn—Boston College is an easy car or "T" ride away from a booming center for trade, finance, research and education.

Home to some of New England's most prestigious cultural landmarks, including the Museum of Fine Arts, the Isabella Stewart Gardner Museum, Boston Symphony Hall and the Freedom Trail, Boston provides a rich environment for those passionate about art, music and history. For sports fans, Boston hosts a number of the country's greatest sports teams: the Celtics, Patriots, Bruins and, of course, Fenway Park's beloved Red Sox. Found within a short drive from Boston are some of New England's best recreational sites, from the excellent skiing in New Hampshire to the pristine beaches of Cape Cod.

Boston also offers a wide range of family friendly attractions, including the Children's Museum, New England Aquarium, Franklin Park Zoo and the Museum of Science. There are roughly 50 universities located in the Boston area, and the large student population adds to the city's intellectually rich and diverse community. Events, lectures and reading groups hosted by world-renowned scholars abound on area campuses, providing abundant opportunities to meet and network with other graduate students and faculty throughout the Boston area.

The University

Boston College is a Jesuit university with 15,400 students, 882 full-time faculty and more than 188,000 active alumni. Since its founding in 1863, the University has known extraordinary growth and change. From its beginnings as a small Jesuit college intended to provide higher education for Boston's largely immigrant Catholic population, Boston College has grown into a national institution of higher learning that is consistently ranked among the top universities in the nation. Boston College is ranked 36th among national universities by *U.S. News & World Report.*

Today, Boston College attracts scholars from all 50 states and over 80 countries, and confers more than 4,300 degrees annually in more than 50 fields through its eight schools and colleges. Its faculty members are committed to both teaching and research and have set new marks for research grants in each of the last 10 years. The University is committed to academic excellence. As part of its most recent strategic plan, Boston College is in the process of adding 100 new faculty positions, expanding faculty and graduate research, increasing student financial aid and widening opportunities in key undergraduate and graduate programs.

The University is comprised of the following colleges and schools: Morrissey College of Arts and Sciences, Carroll School of Management, Connell School of Nursing, Lynch School of Education and Human Development, Woods College of Advancing Studies, Boston College Law School, School of Social Work and School of Theology and Ministry.

General Resources

HOUSING

While on-campus housing is not available for graduate students, most choose to live in nearby apartments. The Office of Residential Life maintains an extensive database with available rental listings, roommates and helpful local real estate agents. The best time to look for fall semester housing is June through the end of August. For spring semester housing, the best time to look is late November through the beginning of the second semester. Additionally, some graduate students may live on campus as resident assistants. Interested students should contact the Office of Residential Life.

STUDENT LIFE AND CAMPUS RESOURCES

JOHN COURTNEY MURRAY, S.J., GRADUATE STUDENT CENTER

One of only a handful of graduate student centers around the country, the Murray Graduate Student Center is dedicated to the support and enrichment of graduate student life at Boston College. Its primary purpose is to build a sense of community among the entire graduate student population and cultivate a sense of belonging to the University as a whole. Its amenities include study rooms, a computer lab, two smart televisions, kitchen, deck and patio space, complimentary coffee and tea, and more. Throughout the year, the center hosts programs organized by the Office of Graduate Student Life and graduate student groups. The Murray Graduate Student Center also maintains an active job board (available electronically), listing academic and non-academic opportunities for employment both on and off campus.

MCMULLEN MUSEUM OF ART

Serving as a dynamic educational resource for the national and international community, the McMullen Museum of Art showcases interdisciplinary exhibitions that ask innovative questions and break new ground in the display and scholarship of the works on view. The McMullen regularly offers exhibition-related programs, including musical and theatrical performances, films, gallery talks, symposia, lectures, readings and receptions that draw students, faculty, alumni and friends together for stimulating dialogue. Located on the Brighton campus, the McMullen Museum is free to all visitors.

CONNORS FAMILY LEARNING CENTER

Working closely with the Graduate School, the Connors Family Learning Center sponsors seminars, workshops and discussions for graduate teaching assistants and teaching fellows on strategies for improving teaching effectiveness and student learning. Each fall, the Learning Center and the Graduate School hold a "Fall Teaching Orientation" workshop designed to help students prepare for teaching. The center also hosts ongoing seminars on college teaching, higher learning and academic life; assists graduate students in developing teaching portfolios; and provides class visits and teaching consultations, upon request. Through these and other activities, the Connors Family Learning Center plays an important role in enhancing the quality of academic life at Boston College.

MARGOT CONNELL RECREATION CENTER

The Margot Connell Recreation Center redefines the future of fitness and recreation at Boston College. The 244,000-square-foot, four-story structure offers our community an inspired space to play, pursue sports, gather with friends and work out. This facility includes a fitness center, rock climbing wall, jogging track, aquatics center, wood-floor basketball courts, tennis courts, multi-activity courts, multi-purpose rooms for spin, yoga and fitness classes, and so much more.

BOSTON COLLEGE CAREER CENTER

The Boston College Career Center works with graduate students at each step of their career development. Services include self-assessment, career counseling, various career development workshops, resume and cover letter critiques, and practice interviews. In addition to extensive workshop offerings, Career Center staff members are available throughout the year for one-on-one advising about any aspect of the career path. The Career Resource Library offers a wealth of resources, including books, periodicals and online databases.

ADMISSION AND FINANCIAL INFORMATION

Admission Requirements

The application deadline for fall admission is January 20. Please visit bc.edu/mcgs for detailed information on how to apply.

Application requirements include:

❖ **Application Form:**	Submitted online, via the MCGS website.
❖ **Application Fee:**	$75, non-refundable.
❖ **Abstract of Courses Form:**	A concise overview of background and related courses completed in an intended field or proposed area of study.
❖ **Official Transcripts:**	Demonstrating coursework completed/degree conferral from all post-secondary institutions attended.
❖ **GRE General Test:**	Official score report (optional).
❖ **GRE Subject Test:**	Official score report (optional).
❖ **Three Letters of Recommendation:**	Preferably from undergraduate teachers of mathematics.
❖ **Statement of Purpose:**	A brief (1-2 page) discussion of an applicant's preparation, motivation and goals for their proposed course of study.
❖ **Proof of English Proficiency:** (*international only*)	Official TOEFL/IELTS score reports accepted.

Financial Assistance

DEPARTMENT FUNDING

All applicants are considered for teaching assistantships. These positions carry a competitive stipend and full-tuition scholarships. In addition, there is the possibility for summer support for research. Continued eligibility for support is contingent upon reasonable progress toward the degree and acceptable performance of teaching assistant/teaching fellowship duties.

FEDERAL FINANCIAL AID

Graduate students can apply for federal financial aid using the FAFSA. The loans that may be available to graduate students are the Federal Direct Unsubsidized Stafford Loan and Perkins Loan, based on eligibility. If additional funds are needed, student may apply for a Grad Plus Loan. For more information, see the Graduate Financial Aid website at bc.edu/gradaid or contact the Graduate Financial Aid Office at 617-552-3300 or 800-294-0294.

OFFICE OF SPONSORED PROGRAMS

The Office of Sponsored Programs (OSP) assists both faculty and graduate students in finding sources of external funding for their projects and provides advice in the development of proposals. OSP maintains a reference library of publications from both the public and private sectors listing funding sources for sponsored projects. In the recent past, graduate students have received research support from prominent agencies, corporations and organizations such as the Fulbright Commission, the Guggenheim Foundation, the National Science Foundation, the American Political Science Association, the American Chemical Society and the American Association of University Women.

BOSTON COLLEGE

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