

MATHEMATICS

Doctor of Philosophy Master of Science and Master of Arts

PROGRAMS OF STUDY: The Department of Mathematics offers a strong program leading to the Doctor of Philosophy (Ph.D.) degree. The Ph. D. program requires advanced course work, three qualifying exams (one of which can be a special topic of the student's choice), a language exam, and a dissertation. The dissertation can be in any area within the broad expertise of the faculty. The Department of Mathematics also offers programs leading to other graduate degrees, such as the Master of Science (M.S.) and the Master of Arts (M.A.) degrees. The M.A. program is intended **solely** for secondary school teachers.

RESEARCH: The faculty of the Department of Mathematics is engaged in high quality research and is eager to share its knowledge and enthusiasm with students. There is an active colloquium program, as well as weekly seminars in various focused areas of mathematics. The degree programs are flexible and can be tailored to the needs and interests of students with diverse mathematical backgrounds. Classes are generally small and students can expect to receive personal attention, often unavailable at larger institutions. The faculty takes pride in working closely with students and directing their research. The faculty has a wide range of research interests, including:

- Algebraic Combinatorics
- Algebraic Geometry and the Mathematics of String Theory
- Differential Equations and Dynamical Systems
- Differential Geometry and General Relativity
- Mathematical Biology
- Stochastic Processes and Mathematical Finance
- Topology and Gauge Theory

For students specifically interested in mathematical ecology, there is a program administered by the Institute for Theoretical and Mathematical Ecology which combines graduate work in mathematics and in biology (through the Department of Biology) or marine biology (through the Rosenstiel School of Marine and Atmospheric Science.)

SUPPORT: The Department of Mathematics provides a number of teaching assistantships, with a current (2008-09) stipend of \$22,000. In addition to the stipend, TAs receive a tuition waiver. Other types of support may be available for qualified applicants.

SURROUNDING AREA: The campus is located in Coral Gables, a lovely suburban community about 7 miles from downtown Miami. The Everglades National Park, Biscayne National Park, and the ocean beaches (including the internationally famous South Beach), which attract nature lovers and fun lovers from around the world, are close by. The sub-tropical climate allows year-round recreation, and there are first-rate athletic facilities available on campus. In addition to the many cultural activities in the area, including events at the new Adrienne Arsht Center for the Performing Arts downtown, there is an active theater program at the University Ring Theater and an outstanding series of musical events each year at Gusman Concert Hall.

For More Information

To learn more about the faculty and/or program and application requirements:

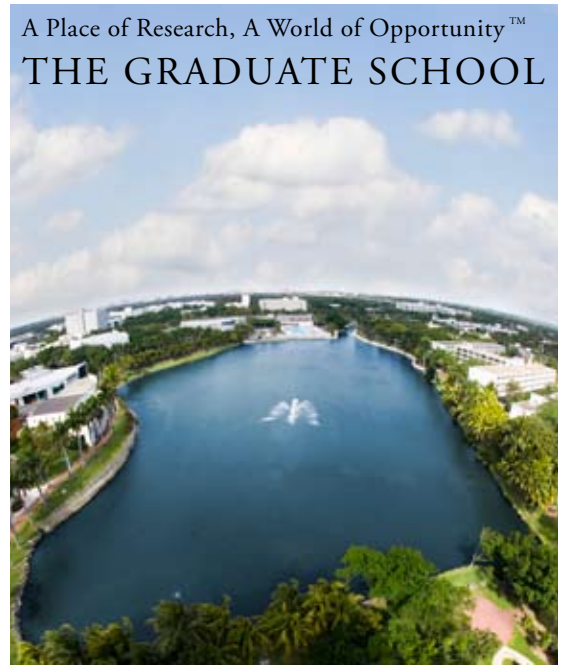
www.math.miami.edu

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General information on graduate studies at the University of Miami:

www.miami.edu/grad

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Terri A. Scandura, Ph.D.
Dean, The Graduate School



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THE FACULTY AND THEIR RESEARCH

LARS ANDERSSON, Professor, Ph.D., University of Umea, 1984. Differential Geometry and General Relativity.

KENNETH BAKER, Asst Prof, PhD University of Texas 2004. Topology

MINGLIANG CAI, Associate Professor, Ph.D., University of Pennsylvania, 1991. Differential Geometry.

STEPHEN CANTRELL, Professor, Ph.D., Utah, 1981. Partial Differential Equations, Nonlinear Analysis and Mathematical Ecology.

ROBERT CHEN, Professor, Ph.D., Minnesota, 1974. Probability, Statistics, Computer Science.

BRIAN COOMES, Associate Professor, Ph.D., University of Nebraska, 1988. Differential Equations, Dynamical Systems.

CHRIS COSNER, Professor, Ph.D., Berkeley, 1977. Differential Equations, Nonlinear Analysis, Mathematical Ecology.

BRUNO DE OLIVEIRA, Associate Professor, Ph.D., Columbia, 1997. Algebraic Geometry.

ALEXANDER L. DVORSKY, Associate Professor, Ph.D., Berkeley, 1996. Lie Algebras, Representation Theory.

GREGORY GALLOWAY, Professor, Ph.D., University of California, San Diego, 1976. Differential Geometry, Relativity.

MICHELLE WACHS GALLOWAY, Professor, Ph.D., University of California, San Diego, 1977. Algebraic Combinatorics.

RICHARD GOODMAN, Associate Professor, Ph.D., Harvard, 1971. Numerical Analysis, Computer Science.

ILIE GRIGORESCU, Associate Professor, Ph.D. Courant Institute at New York University, 1997. Stochastic Processes.

SHULIM KALIMAN, Professor, Ph.D., Krzizhnoysky National Laboratory, 1979. Algebraic Geometry, Complex Analytic Geometry.

LEV KAPITANSKI, Professor, Ph.D. (1981) & Dr. Sci. (1991) Steklov Institute of Mathematics, Nonlinear Evolution Equations.

LUDMIL KATZARKOV, Professor, Ph.D. University of Pennsylvania, 1995. Algebraic Geometry, Symplectic Geometry and Mathematics of String Theory

MARVIN MIELKE, Professor, Ph.D., Indiana, 1965. Algebraic and Categorical Topology.

VICTOR PESTIEN, Associate Professor, Ph.D., Berkeley, 1980. Probability, Optimization.

SUBRAMANIAN RAMAKRISHNAN, Associate Professor, Ph.D., Indian Statistical Institute, 1980. Probability, Statistics.

SHIGUI RUAN, Professor, Ph.D., University of Alberta, Canada, 1992. Applied Mathematics, Mathematical Biology

NIKOLAI SAVELIEV, Associate Professor, Ph.D., University of Oklahoma, 1995. Algebraic Topology & Geometry.

ALAN ZAME, Professor, Ph.D., Berkeley, 1965. Analysis, Probability.

