

# MATH GRADUATE STUDY

OKLAHOMA STATE UNIVERSITY



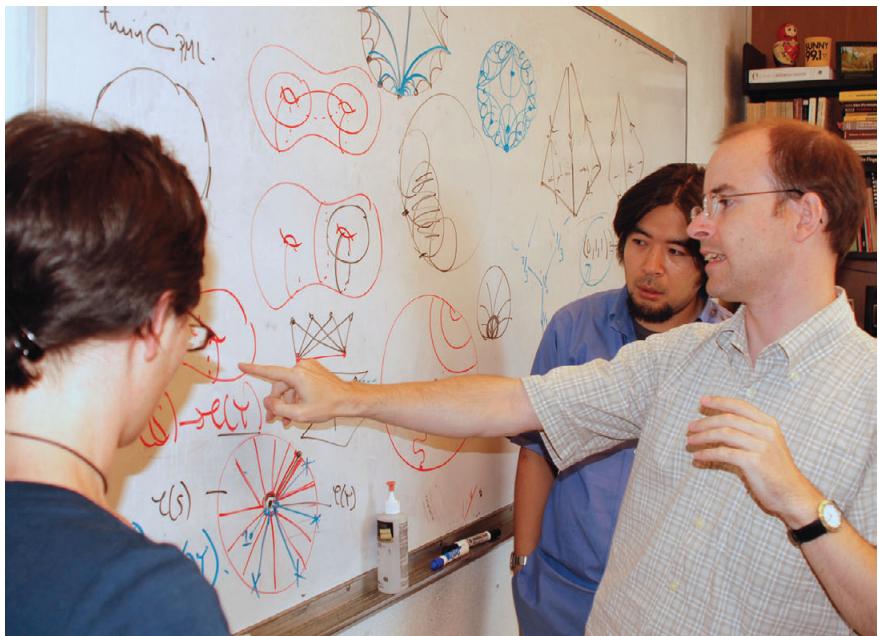
## A CLOSER LOOK

**THE MATHEMATICS DEPARTMENT** at Oklahoma State University offers an internationally renowned faculty with a long-standing tradition of **EXCELLENCE IN RESEARCH AND GRADUATE EDUCATION**. In recognition of their outstanding research two of our faculty received prestigious Sloan Fellowships, two are Humboldt Fellows, one has been honored with an AMS Centennial Fellowship, and several have received awards from the Oak Ridge Associated Universities. Several of our faculty have been honored as the mathematics teacher of the year in the region and one received the national teacher of the year award, which is given each year to only three mathematics teachers in the country.

In addition to the quality of our research and educational programs, the OSU Math Department maintains a **SUPPORTIVE ENVIRONMENT** in which each student can develop to his or her fullest potential. Small class sizes facilitate **PERSONAL INTERACTION** with the faculty, and the schedule of daily seminars and colloquia provide students early exposure to exposition, research and the applications of mathematics. The Department assists students interested in summer internship or interdisciplinary experiences.

The graduate student body provides a mix of men and women, from both domestic and international backgrounds.

## PERSONAL ATTENTION



### APPLICATION FORMS AND MORE INFORMATION

Director of Graduate Studies  
Department of Mathematics, MS 401  
Oklahoma State University  
Stillwater, OK 74078-1058

405-744-5688  
405-744-8275 FAX  
[graddir@math.okstate.edu](mailto:graddir@math.okstate.edu)  
[www.math.okstate.edu/grad/](http://www.math.okstate.edu/grad/)

Faculty and guests  
work together in a  
casual setting.

**HISTORY** — OSU was founded December 25, 1890. Today, it is a comprehensive research university with an international reputation in sensors and sensor technology, information technology and telecommunications, nanotechnology and biotechnology.

**LOCATION** — OSU resides between Tulsa and Oklahoma City in Stillwater. Tulsa is home to OSU-Tulsa and the OSU Center for Health Sciences. Campuses are also located in Okmulgee and Oklahoma City.

**COMMUNITY** — OSU is situated in Stillwater (population approximately 42,000), a community that is nationally known as one of the safest cities in the U.S. Stillwater retains the flavor of small town living while providing the recreational and cultural advantages that you would usually find only in larger communities. Oklahoma's temperate climate offers an average annual temperature of 60°F which allows for approximately seven months of "short sleeves and cottons."

**COLLEGES** — OSU has eight colleges: Agricultural Sciences and Natural Resources; Arts and Sciences; The William S. Spears School of Business; Education; Engineering, Architecture and Technology; Human Environmental Sciences; the Honors College; and the Graduate College. OSU's professional schools include the Center for Veterinary Health Sciences and the Center for Health Sciences.

**FACILITIES** — From stately Old Central to the state-of-the-art Advanced Technology Research Center, the OSU campus includes more than 200 permanent buildings on about 840 acres. OSU students enjoy a unique Colvin Center, one of the top collegiate sports facilities in the nation, a Wellness Center for fitness and nutrition, the nation's largest Student Union and the Edmon Low Library, which contains more than two million volumes and is a member of the prestigious Association of Research Libraries.

**COMPUTER ACCESS** — OSU offers a networked campus with Internet access. Computer enrollment, 24-hour computer labs, web-based library access and multi-media classrooms are also available.

**FINANCIAL ASSISTANCE** — OSU provides financial assistance in the form of scholarships, grants, loans and Federal Work-Study each year. Approximately 80 percent of OSU students receive some type of financial aid.

**FACULTY** — More than 90 percent of OSU faculty members hold the highest degree in their fields. The faculty to student ratio is 1 to 19.

**GREEK LIFE** — OSU is home to 39 fraternities and sororities.

**RESIDENTIAL LIFE** — OSU makes on-campus living easy with options that include three distinct housing styles: apartments, suites, and community style residence halls for both single students and families alike. These housing styles, in addition to 20 Living Learning communities and Affinity Floors, allow residents to find that living and studying together results in better grades, graduating earlier and being more involved than students living off campus. OSU Housing and Residential Life prides itself on the value that it offers students in convenient, safe, academic-centered, affordable housing.

**UNIVERSITY DINING SERVICES** — OSU boasts one of the most flexible meal plan programs in the country with over 30 operations to choose from. Meal options include vegetarian, sushi, burgers, gourmet coffee shops, all you care to eat facilities, convenience stores, pizza, pastas, restaurants, woks, and national chains. The Choose Orange program in UDS highlights healthy eating options available for students.

**EXTRACURRICULAR** — More than 400 registered clubs and organizations, Big 12 athletics and intramural sports are just some of the activities students may choose at OSU. Rounding out the college experience are visits from entertainers, political figures and authors, movies, theatrical and musical performances, concerts featuring popular bands and many other cultural events.



Oklahoma State University in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, sex, age, religion, disability, or status as a veteran in any of its policies, practices or procedures. This includes but is not limited to admissions, employment, financial aid and educational services. This publication, Job #9798, issued by Oklahoma State University as authorized by the Department of Mathematics, was printed by Audio Visual Center, University Printing Services at a cost of \$300.40 21M/November 2006.

A MASTER'S 'S DEGREE in mathematics prepares the student for high school or college teaching, for careers in business or industry, and for doctoral work in mathematics or other fields. The Department's **MASTER OF SCIENCE** degree has three options. The **PURE MATHEMATICS** option emphasizes course work in core areas of mathematics and gives the best preparation for a doctoral program. The **COMPUTATIONAL AND APPLIED MATHEMATICS** option requires greater breadth within the mathematical sciences and provides experience solving actual industrial problems in the course Case Studies in Applied Mathematics and through summer internships. The **MATHEMATICS EDUCATION** option emphasizes scope in mathematics and broad teaching experience.

The Master's degree requires 30-32 semester hours of course work, a grade of A or B in 18 hours of core course work and a Master's Thesis, Report or Creative Component.



### THE DOCTOR OF PHILOSOPHY (PH.D.) DEGREE

in mathematics has two options. The **CLASSICAL PH.D. PROGRAM** (in pure or applied mathematics) prepares students for careers in university research and instruction or industrial research. The **SPECIALIZATION IN MATHEMATICS EDUCATION** prepares students for careers in instruction in mathematics and research in mathematics education.

A doctoral degree requires 60 hours of course work beyond the Master's degree. The student must pass the written Doctoral Comprehensive Exams, an oral Preliminary Exam and exhibit reading knowledge of one foreign language.

The curriculum for students specializing in mathematics education includes advanced courses in education. All doctoral students must write a thesis.

Doctoral students generally work within one of our research groups, which are based upon the vertical integration of research and education. These groups include undergraduates engaged in research, graduate students, postdoctoral fellows and faculty.

## PROMINENT FACULTY



Faculty and students enjoy a variety of math-related activities in casual and informal settings.

- **SCHOLARLY INTEREST** of the faculty cover a wide spectrum of mathematical topics and include some of the most active and important areas of mathematics research and education.

#### ALGEBRA AND GEOMETRY

Bruce Crauder, Ph.D., Columbia, 1981  
Chris Francisco, Ph.D., Cornell, 2004  
Paul Horja, Ph.D., Duke University, 1999  
Anvar Mavlyutov, Ph.D., U Mass Amherst, 2000  
Mathias Schulze, Ph.D., TU Kaiserslautern, 2002

#### ANALYSIS

Dale Alspach, Ph.D., Ohio State, 1976  
Marvin Keener, Ph.D., Missouri, 1970  
Alan Noell, Ph.D., Princeton, 1983  
Igor Pritsker, Ph.D., South Florida, 1995  
David Ullrich, Ph.D., Wisconsin, 1981

#### APPLIED MATHEMATICS

Ning Ju, Ph.D., Indiana, 1999  
JaEun Ku, Ph.D., Cornell, 2004  
Yanqiu Wang, Ph.D., Texas A&M, 2004  
Jiahong Wu, Ph.D., Chicago, 1996

#### MATHEMATICS EDUCATION

Doug Aichele, Ed.D., Missouri, 1969  
James Choike, Ph.D., Wayne State, 1970

#### NUMBER THEORY

Alan Adolphson, Ph.D., Princeton, 1974  
Madhi Asgari, Ph.D., Purdue, 2000  
Amit Ghosh, Ph.D., Nottingham, 1981  
Anantharam Raghuram, Ph.D., Tata Institute for Research, 2001  
David J. Wright, Ph.D., Harvard, 1982

#### REPRESENTATION THEORY

Leticia Barchini, Ph.D., Cordoba, Argentina, 1987  
Birne Binegar, Ph.D., U.C.L.A., 1982  
Anthony Kable, Ph.D., Oklahoma State, 1997  
Lisa Mantini, Ph.D., Harvard, 1983  
Roger Zierau, Ph.D., UC-Berkeley, 1985

#### TOPOLOGY

Benny Evans, Ph.D., Michigan, 1971  
William Jaco, Ph.D., Wisconsin, 1968  
Weiping Li, Ph.D., Michigan State, 1992  
Joseph Maher, Ph.D., UCSB, 2002  
J. Robert Myers, Ph.D., Rice, 1977



Daily "Teas" are held in the Mathematics Department Lounge.

**FINANCIAL AID TO GRADUATE STUDENTS** is mostly provided through **TEACHNG ASSISTANTSHIPS**. Duties include teaching 5 – 6 hours per week. Waives of out-of-state tuition and of six hours of in-state tuition are provided to all full-time teaching assistants

**MOST FIRST SEMESTER GRADUATE STUDENTS DO NOT HAVE TEACHING DUTIES.** Instead, they have reduced duties that allow time to concentrate on their course work while they receive training to gain the skills they will need as a Teaching Assistant.

**RESEARCH ASSISTANSHIPS** assistantships support some advanced doctoral students, providing reduced teaching responsibilities. **FELLOWSHIPS**, which enhance the annual stipend, are available for outstanding applicants. Some summer support is available in the form of Research Assistantships, and Teaching Assistantships.

**RESEARCH FACILITIES** in the form of computers, mathematical software and servers for research work are available to all graduate students and faculty. The Department has its own computer network, as well as access to the University's network, and a computer classroom and facilities to transmit and receive video lectures and seminars.

The University's Edmon Low Library houses over 2 million volumes, nearly 3 million microfilm units, 15,000 journals, including over 100 journals in pure and applied mathematics, and has excellent internet resources available, including full access to MathSciNet and electronic access to many research journals.

The Department's Reading Room has a collection of textbooks and research works in the mathematical sciences.

#### SPECIAL REQUIREMENTS

for **INTERNATIONAL STUDENTS** for whom English is a second language include satisfactorily passing the TOEFL exam for admission to the Graduate College, followed by passing the Test of Spoken English (TSE) and an International Teaching Assistant (ITA) test in order to be employed as a Teaching Assistant. The latter two tests may be taken on campus.

Also, **THE GRADUATE RECORD EXAM (GRE)** is recommended but is not required for admission or for a Teaching Assistantship.

## PRESTIGIOUS SCHOLARSHIP