

MATHEMATICS & STATISTICS

POINTS OF PRIDE

■ Recognized in the recent National Research Council rankings as one of the top math graduate programs at a public university.

■ The number of mathematics majors is increasing sharply, from 475 in 2014 to 583 in 2015.

■ Ivan Mirkovic and collaborator Roman Bezrukavnikov of MIT, have solved one of the most important problems in representation theory by proving the Lusztig Conjecture, which explains the structure of representations in characteristic p .

■ Every year for the past four years, a professor in our department has won

a Simons Fellowship, an achievement shared by only two other universities. The 2015 recipient was Hongkun Zhang.

■ Andrea Nahmod joins Floyd Williams as Fellow of the American Mathematical Society.

■ Panos Kevrekidis is the first member of the department to be elected Fellow of the American Physical Society.

■ Postdoctoral Research Associate Ioannis Pantazis won a \$50,000 award from DARPA (Defense Advanced Research Projects Agency) as the bronze medal recipient in a predictive modeling contest.

EDUCATION

■ Curriculum offers a complete spectrum, from introductory-level general education courses to doctoral direction and postdoctoral mentoring.

■ The department plans to update the statistics curriculum and add new elective courses to expand the upper division curriculum. This year, two courses are being added: History of Mathematics and Analysis II

■ Department teaches 14,000+ students a year, performing over 6 percent of all teaching on campus.

■ Academic programs:

- Undergraduate majors and minors with various concentrations
- MS programs in statistics and applied mathematics with connections to industry
- PhD program in mathematics and statistics

■ Each summer, 8-12 undergraduates are funded to do independent research under faculty supervision, thanks to a generous donation by alumna Joan Barksdale.

LEADERSHIP & OUTREACH

■ Andrea Nahmod and Luc Rey-Bellet are co-organizing a semester-long program at the Mathematical Sciences Research Institute entitled "New Challenges in PDE: Deterministic Dynamics and Randomness in High and Infinite Dimensional Systems."

■ Eduardo Cattani taught a course in Cambodia on Real Analysis as part of a program to help rebuild that country's scientific infrastructure, administered by the Centre International de Mathématiques Pures et Appliquées and the U. S. National Committee for Mathematics of the National Academy of Sciences.

BY THE NUMBERS FY15

Tenure-track faculty	40
Lecturers	8
Postdoctoral fellows	10
Undergraduate majors	583
Graduate students	75
Research awards	\$1.08M

RESEARCH AREAS

Pure and applied mathematics: Algebraic geometry, analysis, computational mathematics, differential geometry, dynamical systems, mathematical physics, number theory, partial differential equations, probability, representation theory, and topology.

Statistics:

Theoretical and applied statistics, with particular emphasis on Bayesian statistics, bioinformatics, mixture models, and measurement error models.

Our research frequently cuts across these somewhat artificial boundaries: i.e., some of the work most closely connected to current topics in mathematical physics ("applied" mathematics) is being done by researchers in representation theory, algebraic geometry, and low-dimensional geometry ("pure" mathematics).