

**Department of Mathematics Faculty**  
**Research Interests Fall 2013**

- **Benjamin Adcock**, Assistant Professor of Mathematics, Ph.D. University of Cambridge 2010; numerical analysis, computational mathematics.
- **Donu Arapura**, Professor of Mathematics, Ph.D. Columbia University 1985; algebraic geometry.
- **Rodrigo Bañuelos**, Professor of Mathematics, Ph.D. University of California, Los Angeles 1984; probability and its applications to harmonic analysis, pde, spectral theory and geometry.
- **Saugata Basu**, Professor of Mathematics and Computer Science, Ph.D. Courant Institute of Mathematical Sciences (NYU) 1996; real algebraic geometry.
- **Fabrice Baudoin**, Professor of Mathematics, Ph.D. Paul Sabatier University 2002; stochastic analysis.
- **Patricia Bauman**, Professor of Mathematics, Ph.D. University of Minnesota 1982; partial differential equations, applied mathematics.
- **Steven Bell**, Professor of Mathematics, Ph.D. Massachusetts Institute of Technology 1979; several complex variables.
- **Mireille Boutin**, Associate Professor of Electrical and Computer Engineering and Mathematics, Ph.D. University of Minnesota 2001; invariant theory of Lie group actions on manifolds.
- **Johnny Brown**, Professor of Mathematics, Ph.D. University of Michigan 1979; complex variables.
- **Gregery Buzzard**, Professor of Mathematics, Ph.D. University of Michigan 1995; computational modeling of biological systems.
- **Zhiqiang Cai**, Professor of Mathematics, Ph.D. University of Colorado 1990; numerical analysis, applied mathematics.
- **David Catlin**, Professor of Mathematics, Ph.D. Princeton University 1978; several complex variables.
- **Giulio Caviglia**, Assistant Professor of Mathematics, Ph.D. University of Kansas 2004; commutative algebra.
- **Min Chen**, Professor of Mathematics, Ph.D. Indiana University 1991; numerical analysis, pde, scientific computing.

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- **John Cushman**, Distinguished Professor of Earth and Atmospheric Sciences, Professor of Mathematics, Ph.D. Iowa State University 1978; applied mathematics.
- **Marius Dadarlat**, Professor of Mathematics, Ph.D. University of California, Los Angeles 1991; operator algebras, K-theory.
- **Donatella Danielli**, Professor of Mathematics, Ph.D. Purdue University 1999; partial differential equations, applied mathematics, harmonic analysis.
- **Burgess Davis**, Professor of Mathematics and Statistics, Ph.D. University of Illinois 1968; probability.
- **Louis de Branges**, Edward C. Elliott Distinguished Professor of Mathematics, Ph.D. Cornell University 1957; complex analysis, Fourier analysis, functional analysis.
- **Maarten de Hoop**, Professor of Mathematics and Earth and Atmospheric Sciences, Ph.D. Delft University of Technology 1992; inverse problems, numerical analysis.
- **Steven Dong**, Associate Professor of Mathematics, Ph.D. State University of New York, Buffalo 2001; large-scale parallel scientific computing, grid computing applied to multi-physics simulations.
- **Harold Donnelly**, Professor of Mathematics, Ph.D. University of California, Berkeley 1974; differential geometry.
- **David Drasin**, Professor of Mathematics, Ph.D. Cornell University 1966; complex variables, potential theory.
- **Alexandre Eremenko**, Distinguished Professor of Mathematics, Ph.D. Rostov University 1979; complex analysis, dynamical systems.
- **Zhilan Feng**, Professor of Mathematics, Ph.D. Arizona State University 1994; mathematical biology, applied mathematics.
- **Jose Figueroa-Lopez**, Associate Professor of Statistics and Mathematics, Ph.D. Georgia Institute of Technology 2004; mathematical finance, probability and stochastic processes.
- **Andrei Gabrielov**, Professor of Mathematics and Earth and Atmospheric Sciences, Ph.D. Moscow State University 1973; real algebraic and analytic geometry.
- **David Gepner**, Assistant Professor of Mathematics, PhD: University of Illinois 2006; algebraic topology

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- **Edray Goins**, Associate Professor of Mathematics, Ph.D. Stanford University 1999; number theory, algebraic geometry.
- **David Goldberg**, Professor of Mathematics, Ph.D. University of Maryland 1991; representation theory, number theory, automorphic forms.
- **William Heinzer**, Professor of Mathematics, Ph.D. Florida State University 1966; commutative algebra.
- **Erika Kaufmann**, Associate Professor of Mathematics and Physics, Ph.D. University of Bonn 1999; mathematical physics, condensed matter theory.
- **Ralph Kaufmann**, Professor of Mathematics, Ph.D. University of Bonn 1997; algebraic topology.
- **Rachael Kenney**, Assistant Professor of Mathematics and C&I, Ph.D. North Carolina State University 2008; mathematics education.
- **Laszlo Lempert**, Distinguished Professor of Mathematics, Ph.D. Eotvos Lorand University (Budapest) 1979; complex analysis.
- **Peijun Li**, Assistant Professor of Mathematics, Ph.D. Michigan State University 2005; inverse scattering, scientific computing, applied mathematics.
- **Victor Lie**, Assistant Professor of Mathematics, PhD: University of California, Los Angeles 2009; harmonic analysis.
- **Joseph Lipman**, Professor of Mathematics, Ph.D. Harvard University 1965; algebraic geometry, commutative algebra.
- **Leonard Lipshitz**, Professor of Mathematics, Ph.D. Princeton University 1972; model theory, algebra, non-archimedean analysis.
- **Tong Liu**, Associate Professor of Mathematics, Ph.D. University of Michigan 2005; arithmetic geometry, algebraic number theory.
- **Bradley Lucier**, Professor of Mathematics and Computer Science, Ph.D. University of Chicago 1981; numerical analysis, wavelets.
- **Kenji Matsuki**, Professor of Mathematics, Ph.D. Columbia University 1988; algebraic geometry.
- **James McClure**, Professor of Mathematics and Curriculum & Instruction, Ph.D. University of Chicago 1978; topology.

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**Research Interests Fall 2013**

- **Ben McReynolds**, Assistant Professor of Mathematics, Ph.D. University of Texas, Austin 2006; geometry, topology, geometric group theory, algebra.
- **Tzuong-Tsieng Moh**, Professor of Mathematics, Ph.D. Purdue University 1969; algebraic geometry.
- **Richard Penney**, Professor of Mathematics, Ph.D. Massachusetts Institute of Technology 1971; group representations, harmonic analysis, several complex variables.
- **Jonathon Peterson**, Assistant Professor of Mathematics, Ph.D. University of Minnesota 2008; probability theory.
- **Arshak Petrosyan**, Professor of Mathematics, Ph.D. Royal Institute of Technology, Stockholm 2000; partial differential equations.
- **Daniel Phillips**, Professor of Mathematics, Ph.D. University of Minnesota 1981; partial differential equations, applied mathematics.
- **Herman Rubin**, Professor of Statistics and Mathematics, Ph.D. University of Chicago 1948; statistics.
- **Antonio Sa Barreto**, Professor of Mathematics, Ph.D. Massachusetts Institute of Technology 1988; partial differential equations.
- **Juan Santos**, Professor of Mathematics, Ph.D. University of Chicago 1983; numerical analysis, applied mathematics.
- **Freydoon Shahidi**, Distinguished Professor of Mathematics, Ph.D. Johns Hopkins University 1975; automorphic forms.
- **Jie Shen**, Professor of Mathematics, Ph.D. Université de Paris-Sud 1987; numerical analysis, pde, scientific computing.
- **Robert Skeel**, Professor of Computer Science and Mathematics, Ph.D. University of Alberta 1974; scientific computing, computational biology.
- **Plamen Stefanov**, Professor of Mathematics, Ph.D. Sofia University 1988; partial differential equations, inverse problems, mathematical physics.
- **Andrew Toms**, Associate Professor of Mathematics, Ph.D. University of Toronto 2002; operator algebras,  $C^*$ - algebras.
- **Monica Torres**, Associate Professor of Mathematics, Ph.D. University of Texas at Austin 2002; partial differential equations, calculus of variations.

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- **Bernd Ulrich**, Professor of Mathematics, Ph.D. University of Saarland 1980; commutative algebra.
- **Frederi Viens**, Professor of Statistics and Mathematics, Ph.D. University of California, Irvine 1996; probability, stochastic processes, mathematical finance.
- **Samuel Wagstaff**, Professor of Computer Science and Mathematics, Ph.D. Cornell University 1970; number theory, information security.
- **Uli Walther**, Professor of Mathematics, Ph.D. University of Minnesota 1999; algebraic geometry, commutative algebra.
- **Allen Weitsman**, Professor of Mathematics, Ph.D. Syracuse University 1968; complex variables.
- **Jaroslav Wlodarczyk**, Professor of Mathematics, Ph.D. Warsaw University 1993; algebraic geometry.
- **Jialin Xia**, Assistant Professor of Mathematics, Ph.D. University of California Berkeley 2006; numerical linear algebra.
- **Sai Kee Yeung**, Professor of Mathematics, Ph.D. Columbia University 1989; differential geometry, complex manifolds.
- **Nung Kwan Yip**, Professor of Mathematics, Ph.D. Princeton University 1996; partial differential equations.
- **Eleftherios Zachmanoglou**, Professor of Mathematics, Ph.D. University of California, Berkeley 1962; partial differential equations.