



# THE UNIVERSITY OF CALIFORNIA, MERCED APPLIED MATHEMATICS



The Applied Mathematics Graduate Program at UC Merced offers academic and research training leading to M.S. and Ph.D. degrees.

We focus on modeling of complex systems, scientific computing, and data-enabled science.

Our students benefit from close mentoring by young and vibrant faculty.



**Come and join us!**

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All qualified domestic and international students will receive full financial support. Early admissions deadline: December 15, annually.





## APPLIED MATHEMATICS

**Harish Bhat** - machine learning applied to the physical sciences (esp. identification and control of quantum systems), dynamics, mechanics, numerical methods, and scientific computing

**Rosemarie Bongers** - harmonic analysis, geometric measure theory, and educational data analysis

**Boaz Ilan** - linear and nonlinear waves, solar-energy conversion, PDEs asymptotic analysis & perturbation methods

**Arnold Kim** - waves in random media, inverse problems, asymptotic analysis and perturbation methods

**Lei, Yue** - lower-dimensional topology and geometry

**Reshma Menon** - partial differential equations (degenerate elliptic equations, free boundary problems), mathematics education (student learning in introductory and bridge courses, anxiety in the mathematics classroom)

**Noemi Petra** - large-scale inverse problems, PDE-constrained optimization, uncertainty quantification, optimal experimental design

**Erica Rutter** - mathematical modeling of biological systems, machine learning, inverse problems

**Maxime Theillard** - numerical modeling of complex fluids

**Chrysoula Tsogka** - Imaging with waves in complex media with applications in remote sensing, geophysics, microwave imaging and optics

**François Blanchette** - fluid dynamics, multiphase flow, stratified fluids, modeling

**Amelia Farid** - mathematics education, learning, and development

**Shilpa Khatri** - fluid-structure interactions, multiphase flows, numerical methods for PDEs, applications in ecology and oceanography

**Changho Kim** - stochastic modeling, scientific computing, computational fluid dynamics, machine-learning-based surrogate modeling, chemical applications

**Roummel Marcia** - nonlinear optimization, numerical linear algebra, compressed sensing, and image processing

**Juan Meza** - optimization, high-performance computing, parallel algorithms

**Tomas Rube** - mathematical and computational biology, machine learning, functional genomics

**Suzanne Sindi** - mathematical modeling of biological systems, uncertainty quantification, machine learning, deep-learning, data-science

**Mayya Tokman** - numerical analysis, scientific computing, mathematical modeling

**Andy Wan** - numerical analysis, structure-preserving discretizations, Bayesian inference, Hamiltonian Monte Carlo, scientific computing and machine learning