

# GRADUATE PROGRAM IN

# MATHEMATICS

## MISSION STATEMENT

The mission of the Department of Mathematics is to teach mathematics to our undergraduate and graduate students; to do research in the mathematical sciences; and to provide mathematical resources to the University and the State of Alabama. Our goal is to achieve a national reputation for doing all three well.

### A SAMPLING OF RECENT PH.D. GRADUATES

2018	Alexander Barnes	Young Harris College
	Phylisicia Carter	University of Alabama
	Khanh Dinh	Rice University
	Xuan He	MathWorks, Inc.
	Mingwei Sun	Samford University
2017	Cong Hoang	James Madison University
	Xin Luo	Wilkes University
	Bryan Sandor	Bethel University
	Huy Vo	Colorado State University
	Erin Watley	University of Alabama
2016	Toyin Alli	University of Georgia
	Anne Duffee	University of the South
	Veny Liu	University of Hawaii West Oahu
	Kaitlyn Perry	Wingate University

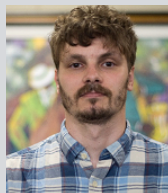
### Current 4th and 5th Year Students



Sheik Ahmed Ullah



Keisha Cook



Timothy Homan



Brandon Reid



Siwen Wang



Xuan Wang

## GRADUATE DEGREE PROGRAMS

Master of Arts

PhD in Mathematics

PhD in Applied Mathematics

**UNDERGRADUATE MAJORS:** 450

**FALL 2018 GTA & FELLOWSHIPS:** 35

**GRADUATE STUDENTS:** 39

**ACCELERATED MASTER'S PROGRAM STUDENTS:** 17

## FINANCIAL SUPPORT FOR GRADUATE STUDENTS

Faculty Research Grants

Fellowships

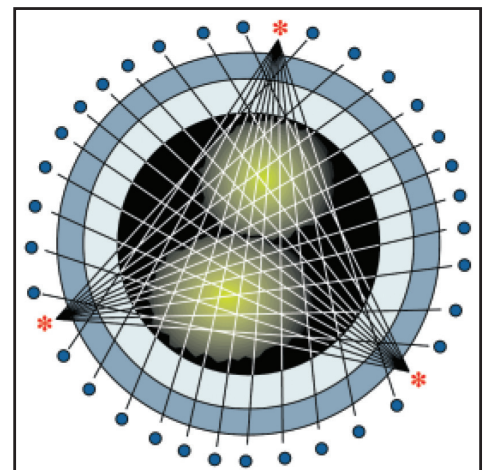
Teaching Assistantships

Tuition Waivers

University Scholarships

## STIPEND RATES

The current stipend is \$18,100.00 plus a tuition waiver for the academic year (August – May). The stipend amount is adjusted periodically to reflect increases in living expenses. Additional summer support is sometimes available.



## FACULTY RESEARCH AREAS

### ALGEBRA

Paul Allen, *Group theory, ring theory*  
Jon Corson, *Geometric group theory*  
Martyn Dixon, *Infinite group theory*  
Martin Evans, *Infinite group theory*

### ANALYSIS

Oleksandra Beznosova, *Harmonic analysis*  
David Cruz-Uribe, *Harmonic analysis, PDEs*  
Tim Ferguson, *Complex analysis, operator theory, harmonic analysis*  
Kabe Moen, *Harmonic analysis, PDEs*  
Robert Olin, *Functional analysis, operator theory*

### TOPOLOGY

Jon Corson, *Low dimensional topology*  
Lawrence Roberts, *Low dimensional topology, homology theory, knot theory*  
Vo Liem, *Geometric topology*  
Bulent Tosun, *Low dimensional topology, contact and symplectic geometry*  
Bruce Trace, *Geometric topology*

### MATH EDUCATION

Jim Gleason, *Mathematical knowledge for teaching, educational measurement*  
Martha Makowski, *Math education, developmental math, STEM access, quantitative and mixed methods*

### APPLIED & COMPUTATIONAL MATHEMATICS

Brendan Ames, *Optimization, machine learning*  
Shibin Dai, *nonlinear PDEs, applied analysis, and numerical analysis*  
Layachi Hadji, *Fluid dynamics, materials science*  
David Halpern, *Fluid dynamics, mathematics in the life sciences, scientific computing*  
Mojdeh Rasoulzadeh, *Mathematical modeling of flow in heterogeneous porous media*  
Dang Nguyen, *Stochastic processes, optimal control, mathematical biology*  
Roger Sidje, *Numerical methods for ODEs, numerical linear algebra, computational biology*  
Min Sun, *Modeling, simulation, global optimization, game theory*  
Shan Zhao, *Numerical methods for PDEs, mathematical methods for molecular biology*  
Wei Zhu, *Image processing, numerical methods for PDEs*  
Chuntian Wang, *PDEs, stochastic PDEs, statistical-stochastic modeling*

### STATISTICS

Yuhui Chen, *Big data analysis, Bayesian nonparametric modeling, survival models, statistical computing*

## CONTACTS

The University of Alabama  
Department of Mathematics  
345 Gordon Palmer  
Box 870350  
Tuscaloosa, AL 35487-0350  
(205) 348-5071  
<http://math.ua.edu>

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Dr. David Halpern  
**Graduate Program Director**  
(205) 348-1977  
[dhalpern@ua.edu](mailto:dhalpern@ua.edu)

Dr. David Cruz-Uribe, OFS  
**Department Chair**  
(205) 348-5074  
[dcruzuribe@ua.edu](mailto:dcruzuribe@ua.edu)

Mrs. Natalie Lau  
**Graduate Program Assistant**  
(205) 348-5071  
[klau@ua.edu](mailto:klau@ua.edu)



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