



UNIVERSITY OF
South Carolina

College of Arts and Sciences

Ph.D. and Master's in Mathematics



At the University of South Carolina
you will develop mathematical skills
for research and a rewarding career.
You bring your passion for mathematics,
we'll add the opportunities.

APPLY NOW

go.sc.edu/mathgrad

Ph.D. and Master's	Research Focus	Inter- disciplinarity	Professional Development	Dollars and Cents	Ask Questions and Apply

Research Focus

We will pair you with a dissertation advisor who will guide you in your academic journey, provide you with opportunities to participate in exciting research and ultimately help you to formulate and achieve your career goals. Current research opportunities include:

Algebra and Number Theory

- Algebraic and arithmetic geometry
- Commutative algebra
- Algebraic and analytic number theory

Applied and Computational Math

- Numerical PDE's
- Mathematical modeling
- Mathematical biology
- Structural imaging
- Machine learning
- Data science

Discrete Math

- Combinatorics
- Graph theory; applications to biology
- Computer science
- Geometry
- Network science

Analysis

- PDE's
- Mathematical physics
- Quantum information
- Functional analysis

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Our department has 32 tenured and tenure-track faculty, all of whom are actively engaged in high-level research in most major areas of modern mathematics.

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Interdisciplinarity

Our research impacts other disciplines and the real world.

In addition to working alongside world-class mathematicians, you will have the opportunity to cross-collaborate with scholars and experts from a variety of other fields.

Our Ph.D. students have made important contributions to research related to:

- Biology
- Chemistry
- Computer science
- Chemical engineering
- Materials science



Data science is a strong and growing field at South Carolina, which creates opportunities for collaboration between computational math, discrete math and computer science.

“ Interdisciplinary research has done more for our progress than individual areas. ”
— Paula Vasquez,
Associate Professor

We break down the boundaries between disciplines to give you real-world experience.

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Professional Development

At South Carolina, you will build the skills you need for your career.

Become an effective teacher

- Teaching seminars
- Peer mentoring program for graduate student instructors
- Instructor for undergraduate courses

Join a global network of mathematicians

- National laboratories
- Industry connections
- Summer internships
- Research fellowships

Connect through professional organizations

- Society for Industrial and Applied Mathematics
- Association for Women in Mathematics
- National research conferences
(some travel funding is available)

“ I am really grateful for the endless help and unconditional support from my USC mentor and professors. From attending conferences and workshops, through internships, job searching, and so on, their help and support helped me overcome challenges and barriers in my academic journeys. ”

— Shuang Liu, Postdoctoral Fellow at University of California at San Diego (former Postdoctoral Fellow at Los Alamos National Laboratory)



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Dollars and Cents

Our Ph.D. students enjoy one of the most competitive financial packages in the Southeast.

Benefits include:

- Full tuition waiver
- \$19,500+ stipend for nine months
- Fellowships available from \$4,000 to \$8,000
- Summer teaching opportunities
- Affordable living in Columbia, S.C.



A great place to live

Columbia, South Carolina, is a charming, thriving capital city. It's big enough that you can do anything, but small enough that you won't feel lost. From outdoor adventure to arts and entertainment, Columbia is a place where you can find community and enjoy your graduate years.

At its center is the University of South Carolina. Established in 1801, the university has more than 35,000 students, including nearly 7,000 graduate students. It is a member of the Southeastern Conference, and is a hub of Columbia's scene for sports, arts, culture and dining.

“ I knew USC was a place I could thrive. The faculty were excellent mentors. They helped design research activities that were both challenging and achievable, and pushed me to attend conferences and workshops that made me stand out in the crowd upon graduation. ”

— Aaron Dutle, Research Computer Scientist, NASA Langley Research Center

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In summary, South Carolina is a place where you can take your skills to the next level, launch your career and enjoy life while you're at it.

“ Coming to USC is one of the best life decisions I've made. The research environment is so welcoming and inclusive here that I got ample opportunities to work on a broad line of research with different professors. The faculty here are not only world-class mathematicians, but also excellent mentors, friends and role models. Their trust and support gave me so much faith when I questioned myself from time to time during my Ph.D. The department is a very close-knit community, and I felt a deep sense of belonging during my time here. ”

— Zhiyu Wang, Hale Postdoctoral Fellow, Georgia Tech



“ I knew I wanted a career in academia, but I didn't know how much of a role research would play in my future. My professors were very attentive to my goals and helped me choose an advisor who would open the most opportunities for me. ”

— Heather Smith Blake, Assistant Professor of Mathematics and Computer Science, Davidson College



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Full consideration will be given to applications received by February 28, 2023.

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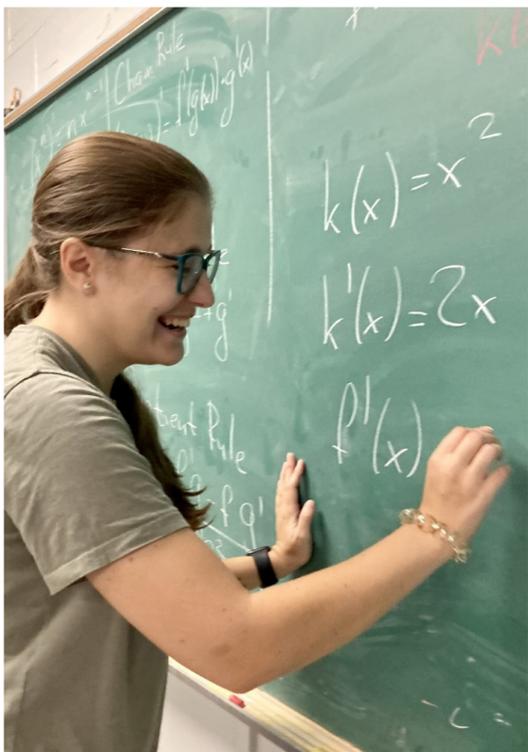
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