

MSRI-UP

2024

MSRI-UP is an award-winning comprehensive Research Experience for Undergraduates (REU) program aimed at identifying and supporting talented students, including those from underrepresented backgrounds, interested in careers in the mathematical sciences.

JUNE 15 - JULY 27, 2024 · BERKELEY, CA
Simons Laufer Mathematical Sciences Institute (SLMath)

MSRI-UP seeks undergraduates who have completed two years of university-level mathematics courses and would like to conduct research in the mathematical sciences.

This six-week summer program takes place at SLMath in Berkeley (formerly known as MSRI). Student participants will learn about a modern mathematical topic and conduct collaborative research, working with a community of mentors and academic peers. Participants will leave with the necessary skills and knowledge to conduct and present collaborative research and apply for graduate studies and fellowships.

THE RESEARCH TOPIC OF THE 2024 PROGRAM WILL BE MATHEMATICAL ENDOCRINOLOGY.

The Onsite Director will be **Dr. Candice Price** (Smith College). The Research Leader will be **Dr. Erica J. Graham** (Bryn Mawr College).

FINANCIAL SUPPORT

All participants will receive a \$3,600 stipend, as well as lodging, meals, and roundtrip travel to Berkeley, CA.

slmath.org/msri-up



SIMONS LAUFER
MATHEMATICAL
SCIENCES INSTITUTE



ALFRED P. SLOAN
FOUNDATION

SUPPORT

Each of the 18 students will:

- Participate in the mathematics research program under the direction of **Dr. Erica J. Graham** (Associate Professor of Mathematics at Bryn Mawr College)
- Receive additional support of a dedicated post-doc and two graduate students
- Complete a research project done in collaboration with other MSRI-UP students
- Give a presentation and write a technical report on their research project
- Attend a series of colloquium talks given by leading researchers in their fields
- Attend workshops aimed at developing skills and techniques needed for research careers in the mathematical sciences
- Learn techniques that will maximize a student's likelihood of admissions to graduate programs as well as the likelihood of winning fellowships

AFTER MSRI-UP

Each student selected for this program will be introduced to a network of mentors and given advice and assistance in navigating the process of applying to graduate schools and fellowship programs.

All participants have the opportunity to present summer research at national conferences in the year following the summer program, and alumni will be contacted regarding future research opportunities.

2024 RESEARCH TOPIC

Mathematical Endocrinology

Endocrinology is broadly defined as the study of hormones and the glands and organs that produce them. The research program will focus on the analysis and development of mathematical models of various components of the endocrine system, under both physiological and pathological circumstances. A variety of mathematical & computational tools will be used as needed to examine research topics ranging from diabetes and metabolism to ovulatory function.

ELIGIBILITY

Applicants must have completed two years of university-level mathematics courses. Students who will have graduated by August 31, 2024 are not eligible. **Due to funding restrictions, only U.S. citizens and permanent residents are eligible to apply.** Deferred Action for Childhood Arrivals (DACA) students are also eligible thanks to generous funding by the Alfred P. Sloan Foundation. The program cannot accept foreign students regardless of funding.

SLMath and the NSF are strongly committed to expanding the opportunities in the mathematical sciences to people of all racial, ethnic, geographic and socioeconomic backgrounds, sexual orientations, gender identities, and to persons with disabilities.

HOW TO APPLY

Applications for MSRI-UP will be done through the National Science Foundation's REU Common Application. The application period begins in mid-November of each year.

APPLICATION DEADLINES

Applications submitted by **February 15, 2024** will receive full consideration. (Applications submitted between February 15 and March 1, 2024 may still be considered in a second round of acceptances.) We expect to begin making offers for participation in late February or early March 2024.

“It was incredibly valuable to talk with so many amazing mathematicians — my peers, my mentors, the guests who came in, the grad students who were there, and other mathematicians who were working at SLMath.”

“I really enjoyed the friendships I built here, and especially the close relationships within my advising group.”



SIMONS LAUFER
MATHEMATICAL
SCIENCES INSTITUTE



ALFRED P. SLOAN
FOUNDATION