

SUMMER GRADUATE SCHOOLS

2023

SLMath Summer Graduate Schools are residential programs (usually two weeks in length) for graduate students from SLMath Academic Sponsors and other U.S. institutions, providing students with the opportunity to learn from the top researchers in their fields.

SUMMER 2023 · BERKELEY, CA & WORLDWIDE Simons Laufer Mathematical Sciences Institute (SLMath)

SLMath (formerly known as MSRI) will host 11 Summer Graduate Schools at our institute and at partner institutions around the globe.

ELIGIBILITY

Graduate students from SLMath Academic Sponsoring Institutions or from the mathematics department of any U.S. institution are eligible to apply.

Students from groups underrepresented in the mathematical sciences (including women and gender-expansive individuals) are particularly encouraged to apply.

HOW TO APPLY

Graduate students must be nominated by their Director of Graduate Studies during the enrollment period of December 1, 2022 through February 1, 2023. Admission is on a first-come, first-served basis up to the limits of the capacity of the school. Early nominations are not accepted.

FINANCIAL SUPPORT

SLMath covers local expenses as well as partial travel expenses for accepted students.

Nominations open on December 1, 2022

msri.org/sgs



SIMONS LAUFER
MATHEMATICAL
SCIENCES INSTITUTE



MSRI/SLMath has been supported from its origins by the National Science Foundation, now joined by the National Security Agency, over 100 Academic Sponsor departments, by a range of private foundations, and by generous and farsighted individuals.

BERKELEY, CALIFORNIA:
MSRI/SLMath

June 5 - June 16, 2023

Formalization of Mathematics

Organizers:

Jeremy Avigad (Carnegie Mellon University)
Heather Macbeth (Fordham University)
Patrick Massot (Université Paris-Saclay)

BERKELEY, CALIFORNIA:
MSRI/SLMath

June 20 - June 30, 2023

**Mathematics and Computer
Science of Market and
Mechanism Design**

Organizers:

Yannai Gonczarowski (Harvard University)
Irene Yuan Lo (Stanford University)
Ran Shorrer (Pennsylvania State University)
Inbal Talgam-Cohen* (Technion)

BERKELEY, CALIFORNIA:
University of California, Berkeley

June 26 - July 7, 2023

**Introduction to Derived
Algebraic Geometry**

Organizers:

Benjamin Antieau (Northwestern University)
Dmytro Arinkin (U. of Wisconsin-Madison)

BERKELEY, CALIFORNIA:
MSRI/SLMath

July 3 - July 14, 2023

**Concentration Inequalities and
Localization Techniques in High
Dimensional Probability and
Geometry**

Organizers:

Max Fathi (Université de Paris)
Dan Mikulincer (Massachusetts Institute of
Technology)

* Represents lead organizer

LEIPZIG, GERMANY:
**Max Planck Institute for
Mathematics in the Sciences**

June 12 - June 23, 2023

**Algebraic Methods for
Biochemical Reaction
Networks**

Organizers:

Timo de Wolff (TU Berlin)
Alicia Dickenstein* (U. of Buenos Aires)
Elisenda Feliu (University of Copenhagen)

MONTRÉAL, CANADA:
Université de Montréal

June 19 - June 30, 2023

**Séminaire de Mathématiques
Supérieures 2023: Periodic and
Ergodic Spectral Problems**

Organizers:

Alexander Elgart (Virginia Polytechnic Inst.)
Vojkan Jaksic (McGill University),
Svetlana Jitomirskaya (U of California, Irvine)
Ilya Kachkovskiy (Michigan State University)
Jean Lagacé (King's College London)
Leonid Parnovski (University College London)

MORAGA, CALIFORNIA:
St. Mary's College

June 20 - June 30, 2023

**Topics in Geometric Flows and
Minimal Surfaces**

Organizers:

Ailana Fraser (University of British Columbia)
Lan-Hsuan Huang (University of
Connecticut)
Catherine Searle (Wichita State University)
Lu Wang (Yale University)

**“...it was an incredible
experience and really
inspired me to become
a professional
mathematician.”**

NOTRE DAME, INDIANA:
University of Notre Dame

May 22 - June 2, 2023

**Commutative Algebra and its
Interaction with Algebraic
Geometry**

Organizers:

Steven Cutkosky (University of Missouri)
Claudia Polini* (University of Notre Dame)
Claudiu Raicu (University of Notre Dame)
Steven Sam (UC, San Diego)
Kevin Tucker (University of Illinois at Chicago)

SAN DIEGO, CALIFORNIA:
University of California, San Diego

Dates TBA

Machine Learning

Organizers:

Ery Arias-Castro (UC, San Diego)
Mikhail Belkin (UC, San Diego)
Yusu Wang (UC, San Diego)
Lily Weng (UC, San Diego)

SAN JOSE, CALIFORNIA:
IBM Research - Almaden

July 10 - July 21, 2023

**Mathematics of Big Data:
Sketching and (Multi-) Linear
Algebra**

Organizers:

Kenneth Clarkson (IBM Research Division)
Lior Hoshen (IBM Research Center)
Misha Kilmer (Tufts University)
Tamara Kolda (MathSci.ai)
Shashanka Ubaru (IBM Research Center)

ZÜRICH, SWITZERLAND:
Institution TBA

Dates TBA

**Foundations and Frontiers of
Probabilistic Proofs**

Organizer:

Alessandro Chiesa (UC, Berkeley)



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