THE MATH ALLIANCE

DR. DAVID GOLDBERG
Director

We've just celebrated Memorial Day, and I hope everyone had a chance to enjoy some time and activity with friends and family, and a chance to reflect on the meaning of the holiday and those we should honor for their sacrifice. With the backdrop of current events, it is good for us to keep in mind how important it is to participate in our democracy by voting.

We are looking forward to the Career Paths Workshop at the University of Chicago June 6&7. The topics we are going to hear about include applications of math to complex systems (including urban planning), topological data science and redistricting, quantitative science careers in government service, and scattering theory and inverse problems. There will also be several community building sessions, and Michael Young, of Carnegie Mellon, will be giving the keynote address. We expect about 40 F-GAP Scholars are going to attend.

This has become an integral part of our annual activity schedule, and I think it has significantly enhanced Math Alliance Scholars' activity and experience. We thank our host and co-organizer, the Institute for Mathematical and Statistical Innovation (IMSI) at University of Chicago, and our other co-organizer, the Institute for Mathematics and its Applications (IMA) at University of Minnesota for their work behalf of our community. IMA also deserves a lot of credit for first conceiving of this workshop in 2019.

A quick reminder that you can still nominate a student for F-GAP. As you encounter students this summer in REUs, or other activities, be sure to engage them and consider whether they are good candidates for the program. In order for an F-GAP Scholar to attend the Field of Dreams Conference (November 8-10), they have to be nominated for FGAP by early September at the latest.

I hope everyone's summer activities, whether they are work related or not, are off to a good start. We'll look forward to seeing many of you in Chicago, and to hearing from Scholars about how they are progressing in all their pursuits.

What's Happening Next?

- **Career Paths Workshop** University of Chicago June 6-7, 2024

- **MAA MathFest 2023** Indianapolis, IN Aug. 7-10, 2024

- **2024 Joint Statistical Meetings (JSM 2024)** Portland, OR Aug. 3-8, 2024

- **STATFEST 2024** Columbia Univ.ersity- New York, NY Sept. 21, 2024

- **2024 Field of Dreams Conference (FOD 2024)** Atlanta, GA November 8-10, 2024

2024-25 F-GAP Program

We are now accepting applications for the 2024-25 F-GAP Program!

What is the F-GAP Program? F-GAP (Facilitated Graduate Admissions Procedure) is a mentoring program for students that are planning to apply to an MS or PhD program in the quantitative sciences within the next year.

Who is eligible to participate? Participation in F-GAP is generally limited to students who:
- will be eligible for graduate school in a quantitative science applying for Fall 2025
- who are US citizens or permanent residents
- who come from ethnic groups that are underrepresented in the quantitative sciences.

Why should a student participate in F-GAP? F-GAP students are matched with a faculty facilitator who will guide and advise them through the graduate school application process. ***Also,*** active F-GAP students are also invited to attend the Career Paths Workshop in June and the Field of Dreams Conference in November 2024 with all expenses paid by the Math Alliance!

Nominate your students here: https://forms.gle/grHsn3isjCu3EUSQA

Questions? see the F-GAP webpage or email Roberto Soto

Nathan Alexander joins Math Alliance Executive Council

The Math Alliance is pleased to announce that Nathan Alexander, Professor of Data Science and Education at Howard University, is the newest member of the Executive Council. Dr. Alexander takes over the seat vacated by the retirement of Jacqueline Hughes-Oliver. We take this opportunity to, again, thank Dr. Hughes-Oliver for her many years of service and wish her a pleasant, healthy, and long retirement.

Dr. Alexander holds a joint appointment in the Howard University School of Education and the Center for Applied Data Science and Analytics (CADSA), and he is the Assistant Director of the MS Program in Data Science. He teaches courses in computational methods, curriculum & instruction, and applied statistics. Dr. Alexander's research explores the history and development of critical and justice-oriented practices in quantitative literacy development, especially in Black educational contexts. This work sits at the intersection of the humanities, social sciences, mathematics, and the computational sciences, with a particular focus on Black history and futurity in national and global contexts. He is also the founding director of the Quantitative Histories Workshop, a community-centered teaching and learning lab for students, faculty, youth, and community partners. We are excited to have his experience, background, and perspective added to the Executive Council as we discuss important policy questions and determine the future directions of the Math Alliance. Welcome
 Dr. Alexander!

Wolfram Summer School 2024

22nd Annual Wolfram Summer School
Bentley University, Waltham, MA, USA
June 23—July 11, 2024

A unique educational and career opportunity. Learn how to apply Wolfram's unique approach to creating ideas and turning them into research, products and companies. We value diversity and inclusion in education and strongly encourage applicants from all backgrounds to apply. For more information and to apply see the **Wolfram Summer School page.** The application process includes a section for fellowship applications.

If anyone has questions or need additional information, feel free to contact us at karinam@wolfram.com. We're here to assist and look forward to potentially having you join us.

Thank you for your support in fostering diversity and excellence in STEM.

Upward Bound (UW STEMsub) Program seeks Data Science and Math Instructors

The University of Washington Math Science Upward Bound (UW STEMsub) Program seeks Data Science and Mathematics Instructors to teach high school students as part of our Summer Academy. UW STEMsub is an outreach program in the Office of Minority Affairs and Diversity that helps low-income and potential first-generation college students excel in high school, get accepted to college, and graduate with a STEM degree. The goal of the summer program is to help prepare students for the demands of college and advance their academic and personal development.

This summer, the UW STEMsub Summer Academy will be held on the UW Campus from July 1st to August 9th. Each class described below will include approximately fifteen rising 11th or 12th graders.

The ideal candidates are advanced graduate students or postdocs in Data or Computer Science, Mathematics, or related STEM fields with teaching experience and a commitment to outreach and diversity. A B.S. or B.A. in Data or Computer Science, Mathematics, or a related STEM field is required. All candidates will be required to undergo a criminal background check. Candidates from underrepresented groups or from low-income/first generation backgrounds or with experience in working with these populations are encouraged to apply. The University of Washington is an affirmative action, equal opportunity employer.

To apply, please complete the online application. Be sure to select the position(s) you are applying for. For more information contact David Wolczyk at dwolczyk@uw.edu.

Data Science/Machine Learning Instructor-Description
As part of the UW STEMsub Summer staff, prepare curriculum and instructional materials and teach an elective Data Science class during the six-week summer program. The goal of the Data Science class is to provide students with a survey of current knowledge and an introduction to the primary literature and research methods in data sciences as determined by the Instructor in consultation with the Program Director.

Each class will include fifteen to twenty rising 11th or 12th graders. STEMsub students are a diverse group of low income and/or potential first-generation college students with differing academic abilities and learning styles.

Teaching commitment is 1 hour per day per course for 4 days per week. The six-week summer program will be held on the UW Campus from July 1st to August 9th. Compensation is $1,800 to $2,000 for the class depending on background and experience.

Mathematics Instructor- Description
As part of the STEMsub Summer staff, prepare curriculum and instructional materials and teach one or two math classes during the six week summer program. The courses offered may include: geometry, algebra II, trigonometry/pre-calculus, calculus, linear algebra, or statistics. Each instructor will teach up to two of the listed topics.

Each class will include fifteen to twenty rising 11th or 12th graders. STEMsub students are a diverse group of low income and/or potential first generation college students with differing academic abilities and learning styles.

Teaching commitment is 1 hour per day per course for 4 days per week. The six week summer program will be held on the UW Campus from July 1st to August 9th. Compensation is $1,800 to $2,000 per class depending on background and experience.

MSRI / Simons Laufer Mathematical Sciences Institute (SLMath) Programs and Workshops

Call for Proposals: SLMath Research Programs, Workshops, and Summer Graduate Schools

The Simons Laufer Mathematical Sciences Institute (SLMath, formerly known as MSRI) in Berkeley, California invites the submission of proposals for Research Programs, Hot Topics Workshops, Revisiting Fundamental Problems Workshops, and Summer Graduate Schools. The Scientific Advisory Committee (SAC) of the Institute meets in January, May and November to consider proposals. slmath.org/propose

Research Programs
Pre-proposals for full- or half-year scientific research programs generally consist of concentrated activity in a specific area of current research interest in the mathematical sciences. Letters of intent to propose are also accepted. Planning of such programs is generally done about three years in advance. Except in extraordinary cases, a subject is the focus of a program not more than once in ten years. SLMath maintains a list of past and currently scheduled programs at slmath.org/programs.

Hot Topics Workshops
Every year, SLMath holds week-long workshops on areas of intense mathematical activity, proposed by the mathematical community.

Revisiting Fundamental Problems Workshops
This new annual workshop addresses fundamental questions in mathematics that have, for one reason or another, been abandoned or neglected. (Beginning in 2025-26)

Summer Graduate Schools
SLMath Summer Graduate Schools are usually two weeks in length. Some are held in Berkeley or nearby in California, others at partner institutions around the US and worldwide.

Submission Deadlines
- Proposals for Scientific Programs and Hot Topics Workshops for review by the SAC may be submitted by March 1st, October 1st, or December 1st of each year.
- Summer Graduate School Proposals must be submitted by September 1st of each year for annual review.

How to Submit Proposals
- Detailed information can be found at slmath.org/propose.
- Questions? Contact proposals@slmath.org.

MSRI, now SLMath, has been supported from its origins by the U.S. National Science Foundation, joined by the National Security Agency, over 115 Academic Sponsor departments, private foundations, and generous and farsighted individuals.

MSRI / Simons Laufer Mathematical Sciences Institute (SLMath) Programs

2025 Summer Research in Mathematics (Berkeley, CA)

Summer Research in Mathematics at SLMath provides space, funding, and the opportunity for in-person collaboration to small groups of mathematicians with partial results on an established project, including women and gender-expansive individuals, whose ongoing research may have been disproportionately affected by various obstacles including family obligations, professional isolation, or access to funding. Learn more: slmath.org/summer-research

Eligibility: Groups of 2-6 mathematicians with partial results on an established project, with Ph.D.or advanced graduate standing in the mathematical sciences required; at least 1 team member must be U.S. based.

Dates: Visits of a minimum of two weeks must take place between June 2 to August 1, 2025.

How to Apply: Applications will be hosted on MathPrograms.org beginning in Summer 2024. The priority application deadline is October 11, 2024. Applications will then be accepted on a rolling basis until capacity is reached.

Funding & Support: Lodging, meals, travel expenses, and post-programmatic travel support. Childcare grants are available for researchers with children under the age of 17 (see website for restrictions) and a nursing room is available.
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Register for Fall 2024 Scientific Workshops at SLMath

SLMath workshops are free to attend in Berkeley and online, thanks to the generous support of our funders, including the National Science Foundation. Register Online: slmath.org/workshops.

New Frontiers in Curvature: Flows, General Relativity, Minimal Submanifolds, and Symmetry
- Connections Workshop: August 21-23, 2024 [Joint Workshop]
- Introductory Workshop: August 26-30, 2024
- Recent Progress on Geometric Analysis and Riemannian Geometry: October 21-25, 2024

Special Geometric Structures and Analysis
- Connections Workshop: August 21-23, 2024 [Joint Workshop]
- Introductory Workshop: September 3-6, 2024
- Geometry and Analysis of Special Structures on Manifolds: November 18-22, 2024

Hot Topics Workshops
- Hot Topics: Life after the Telescope Conjecture: December 9-13, 2024

Funding Support: Funding Support: Established researchers, postdoctoral fellows, and graduate students are invited to apply for funding. Funding awards are typically made eight weeks before the workshop; requests received after the funding deadlines are considered only if additional funds become available. Groups underrepresented in research-intensive contexts including women, gender-expansive individuals, minorities, and mathematicians not located at research centers are welcomed and encouraged to apply.

Resources for Workshop Attendees: SLMath is pleased to be able to offer a private room for nursing parents. Childcare grants are available for researchers with children under the age of 14 (limited to US Citizens and Permanent Residents, and foreign visitors with a visa status that allows for compensation, such as a J-1). See website for full details: https://www.slmath.org/family-services

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MSRI / Simons Laufer Mathematical Sciences Institute (SLMath) -Research Programs

Call for Membership: MSRI / SLMath 2024-25 Research Programs

The Simons Laufer Mathematical Sciences Institute (SLMath, formerly known as MSRI) in Berkeley, California, invites applications for membership in the Institute's 2025-26 research programs beginning August 1, 2024. Detailed information can be found at slmath.org/membership and slmath.org/programs.

- [Kinetic Theory: Novel Statistical, Stochastic and Analytical Methods](#) (Fall 2025)
- [Recent Trends in Stochastic Partial Differential Equations](#) (Fall 2025)
- [Geometry and Dynamics for Discrete Subgroups of Higher Rank Lie Groups](#) (Spring 2026)
- [Topological and Geometric Structures in Low Dimensions](#) (Spring 2026)

The following positions are available:
- Research Professorships are intended for senior researchers who will be making key contributions to a program, including the mentoring of postdoctoral fellows, and who will be in residence for three or more months.
- Research Memberships are intended for researchers who will be making contributions to a program and who will be in residence for one or more months.
- Postdoctoral Fellowships are intended for recent PhDs.

How to Apply
SLMath uses MathJobs.org to process applications. Interested candidates must apply online. To receive full consideration, applications must be complete, including all letters of support, by October 1, 2024 (Research Professors) and November 15, 2024 (Research Members and Postdoctoral Fellows).

Additional Support
SLMath strives to include a diverse community of mathematicians in its programs, and the Institute is committed to maintaining family-friendly policies and, when possible, facilitating appropriate arrangements for partners and children of program members. Some ways that this addressed include:

- SLMath employs a Family Services Coordinator who provides help in locating schools and other services for mathematicians coming to Berkeley with their families.
- The Complementary Program has a limited number of memberships that are open to mathematicians who are partners of invited members of a core program.
- Childcare grants are available for researchers with children under the age of 18 (limited to U.S. Citizens and Permanent Residents, and foreign visitors with a visa status that allows for compensation, such as a J1).
- SLMath is pleased to be able to offer a private room for nursing parents.

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Simons Laufer Mathematical Sciences Institute (SLMath) Spotlight Interview with Ranthony Clark

The Simons Laufer Mathematical Sciences Institute (SLMath) continues our Postdoc Spotlight interview series, featuring Ranthony A. Clark.
Dr. Clark spoke to us about how she uses mathematics to address societal problems such as gerrymandering and the importance of choosing your own definition of success.

Ranthony A. Clark was a Berlekamp postdoctoral fellow in the Algorithms, Fairness, and Equity program at SLMath. She is a postdoc at Duke University, where she is working in the quantifying gerrymandering group. After she leaves Duke, she will join the faculty of The Ohio State University.

To read the entire interview with Dr. Clark see the SLmath website: https://www.slmath.org/scholar-interviews.

Dr. Ranthony Clark was a Math Alliance Scholar and is now a Math Alliance Mentor.

ASA

COMIS
committee on minorities in statistics

♔ COLUMBIA UNIVERSITY
DEPARTMENT OF STATISTICS

♔ COLUMBIA | MAILMAN SCHOOL OF PUBLIC HEALTH
BIOSTATISTICS

STATFEST
2024

SAVE THE DATE

Columbia University
New York, NY
September 21

A FREE, ONE-DAY CONFERENCE FOR STUDENTS!

Learn
about careers and graduate programs in statistics & data science

Connect
with other students, professionals, graduate programs & employers

More info:

tinyurl.com/statfest2024

Applications for Travel Awards close June 1, 11:59pm PT

ALL ARE WELCOME!

The mission of the American Statistical Association's Committee on Minorities is to foster participation in statistics and data science by members of minority groups that have been historically under-represented in the field, and to create a more diverse and inclusive discipline.

NATIONAL DATA MINE NETWORK

The American Statistical Association (ASA) has secured a three-year grant from the National Science Foundation to establish the National Data Mine Network.

100
STUDENTS PER YEAR AT MINORITY SERVING INSTITUTIONS

$5K
IN TOTAL RESEARCH STIPENDS FOR 9-MONTHS OF PARTICIPATION

70+
CORPORATE PARTNERS WITH DATA DRIVEN PROJECTS

100%
VIRTUAL TEAMS THAT COLLABORATE WEEKLY WITH INDUSTRY MENTORS

THE DATA MINE AT A GLANCE

A VISION

The first data-intensive experience embedded in a large-scale living-learning community for students from all majors.

A DEPTH OF KNOWLEDGE

Students apply knowledge of tools, including R, SQL, Python and Linux clusters, and (in some cases) advanced tools for projects requiring AI and machine learning.

AN INNOVATION ENGINE

Interdisciplinary teams bring new perspectives to tough problems, where data science is a key part of the solution.

LEARNING OUTCOMES FOR STUDENTS

- DISCOVER & APPLY DATA SCIENCE TOOLS
- CROSS FUNCTIONAL COLLABORATION
- AGILE PROJECT MANAGEMENT METHODOLOGY
- PROFESSIONAL DEVELOPMENT

Applications for 2024-2025 are open

Postbaccalaureate Certificate in Mathematics

The pathway to graduate school!

JOIN OUR POSTBAC!

- No application fee required.
- 1 year program preparing students for PhD programs in pure and applied mathematics.
- Teaching assistantship covering at least 1/2 tuition (*in-state*) and approximately $21,000 stipend.
- Take graduate courses.
- Be a teaching assistant.
- Get help with PhD applications.

APPLY TODAY

CONTACT US

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Professor and Associate Chair
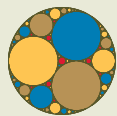lidicky@iastate.edu
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WHAT DO I NEED TO APPLY?

- Bachelor degree from an accredited university (*mathematics bachelor's degree is not required*).
- Proof-based math classes.

What are the learning outcomes of this program?

- Read and write mathematical proofs, producing arguments that are logically and syntactically correct.
- Develop the ability to teach mathematics by leading recitation sections.
- Solidify core knowledge in analysis and algebra.
- Identify preferred areas of specialization in mathematics.

IOWA STATE UNIVERSITY
Department of Mathematics

396 Carver Hall
Ames, Iowa 5011
math.iastate.edu

mathpostbac.org

Member Institution

POSITION AT DEPAUL UNIVERSITY

Term Faculty (Non-Tenure Track) - Mathematical Sciences/STEM (24-25)

The Department of Mathematical Sciences at DePaul University invites applications for a full-time non-tenure track faculty position at the rank of Professional Lecturer starting September 1, 2024. The initial appointment is for one academic year, but the position may be renewed for consecutive appointments. The teaching load for this position is 9 courses per academic year (3 courses per academic quarter).

A significant portion of the teaching load for this position (at least 6 courses per academic year) will be for sections of Quantitative Reasoning. This course provides a mathematical foundation for students to become confident and critical users of quantitative information of all kinds: numerical, graphical, and verbal. Students analyze data from a wide variety of fields, making and critiquing quantitative arguments. The course is taught in a hands-on laboratory environment where students are introduced to computer tools for data analysis and presentation.

DePaul University seeks applicants that reflect the diversity of its student body and the city of Chicago. Applicants who have experience working with a diverse range of faculty, staff, and students, and who can contribute to an inclusive climate are encouraged to identify their experiences in these areas. Women and members of historically underrepresented groups are especially encouraged to apply.

Required Qualifications
· A PhD in Mathematics or a closely related field.
· A demonstrated record of effectiveness or potential as an instructor for a variety of courses or teaching environments.

Preferred Qualifications
· A demonstrated commitment to continued development as an educator.
· Experience or expertise teaching in an active, hands-on environment.
· Experience or expertise teaching with computer tools for data analysis and presentation (e.g., Excel).

For more information and to apply, please go to http://apply.interfolio.com/143734. For full consideration, complete applications should be received by May 15, 2024, but the review process will continue until the position is filled. Questions may be directed to the search committee chair Dr. Christopher Drupieski (c.drupieski@depaul.edu).

This ad has been abbreviated to fit the page. You can see the ad in its entirety on our website.