THE MATH ALLIANCE

A message from our Executive Council...

From its inception, the Math Alliance has worked to broaden participation in the mathematical sciences in the United States. Today, this work continues in the context of the <u>National Science Foundation's congressionally mandated focus</u> on <u>broadening participation in STEM</u>. As the NSF's concept of broadening participation has evolved through the years, so has our own. Our <u>current</u> <u>definition of Math Alliance Predoctoral Scholars</u> conforms with the vision articulated by the NSF:

Math Alliance Predoctoral Scholars are mathematical or statistical sciences students, either undergraduates or students enrolled in a terminal Masters or post-baccalaureate program, who have the ability and desire to earn a doctoral degree in a quantitative science and who come from communities or regions that are underrepresented in these fields.

Scholars are selected by our Math Alliance Mentors using the following criteria:

The student is a US citizen or permanent resident who has attended a US high school and who comes from an area or community that is <u>rural or remote</u> or a community that is underrepresented in the mathematical or statistical sciences and who would be unlikely to pursue graduate study in a mathematical or statistical science without benefiting from the Math Alliance.

We look forward to continuing our work with our partner institutions, member programs, graduate program groups, and the many dedicated volunteers whose hard work and financial support are necessary for the Math Alliance to continue its work.

Please contact us with comments or questions

THE MATH ALLIANCE



DR. DAVID GOLDBERG Director

We are living in very turbulent and uncertain times. So, I want to focus on some things which are certain. We are running the F-GAP program, so please nominate students who fit the F-GAP description for the program. Over the last decade, more than 1,000 students have been part of this program, and at least 78% of them have entered a graduate program following participation, and already ate least 108 F-GAP Scholars have earned doctorates in a wide range of fields. We think the program helps students place themselves in the right program, so is a contributing factor to the growth in Math Alliance Scholar PhDs (we know of 55 in 2023, and 47 in 2024, and both those numbers will increase as the year progresses). If you nominate a student now, then they will be invited to the Career Paths Workshop. That is another certainty.

We are holding the Career Paths Workshop May 29&30 in Chicago.

Save the Date:

2025 Field of Dreams Conference November 7-9 Atlanta, GA

We organize this with the Institute for Mathematical and Statistical Innovation (IMSI) at University of Chicago, also with the Institute for Mathematics and its Applications (IMA) at University of Minnesota. We are grateful to our partners at IMSI and IMA for their continued support and commitment to this workshop.

We also continue to organize the Field of Dreams Conference for November 7-9, and we are going to do everything we can to ensure the conference is held as always, with the usual content. I won't deny there is some question about whether we will need to make some adjustment to the conference, based on availability of certain funding sources in the current climate. But, for now, we are doing what we can to move the organization of this cornerstone event forward.

Finally, the Math Alliance has made a clear and affirmative statement about our work and how we plan to continue to carry it out. This is an important enough statement that we made it the front page of this newsletter. We hope this gives our community some reassurance in the turbulent and uncertain times we find ourselves in.

What's Happening Next?

- Math For All Conference April 5, 2025
- Infinite Possibilities Conference IMSI (Univ. of Chicago) April 11-12, 2025
- Career Paths Workshop Univ. of Chicago May 29-30
- 2025 Field of Dreams Conference (FOD 2025) Atlanta, GA November 7-9, 2025

ICERM WORKSHOP

ICERM welcomes participant applications for a topical workshop, "Uncertainty Quantification for Mathematical Biology", held during May 5-9, 2025, on-site at ICERM in Providence, RI, USA.

Workshop details: icerm.brown.edu/program/topical_workshop/tw-25-uqmb

The core goal of this workshop is to foster research and community collaborations at the intersection of computational and mathematical biology, UQ algorithms, and data-driven learning. This workshop aims to galvanize advancements across these fields. The week-long event will feature speakers, tutorials, panel and small-group discussions, and a poster session.

ICERM welcomes applications from faculty, postdocs, graduate students, industry scientists, and other researchers who wish to participate. To apply to attend, please submit an application through the website linked above. Some funding may be available for travel and lodging.

Short Courses on Obesity, Mathematics, and Causal Inference in Summer 2025!

We invite you to join us at one or both of our in-person NIH-funded short courses being hosted Summer 2025.

Strengthening Causal Inference in Behavioral Obesity Research Dates: Monday, May 12th through Friday May 16th, 2025 Format: In person at University of Alabama at Birmingham (Birmingham, AL)

Course description: Identifying causal relations among variables is fundamental to science. Obesity is a major problem for which much progress in understanding, treatment, and prevention remains to be made. Understanding which social and behavioral factors cause variations in adiposity is vital to producing, evaluating, and selecting intervention and prevention strategies. In addition, developing a greater understanding of obesity's causes requires input from diverse disciplines including statistics, economics, psychology, epidemiology, mathematics, philosophy, and behavioral or statistical genetics. However, applying techniques from these disciplines does not involve routine well-known 'cookbook' approaches. Rather, an understanding of the underlying principles is required so that the investigator can tailor approaches to specific and varying situations.

To apply: Visit our course site at <u>Strengthening Causal Inference in Behavioral Obesity Research</u>

The Mathematical Sciences in Obesity Research Dates: Monday, July 21st through Friday July 25th, 2025 Format: In person at the B1G Ten Conference Center (Rosemont, IL near O'Hare International Airport)

Course description: The mathematical sciences including engineering, statistics, computer science, physics, econometrics, psychometrics, epidemiology, and mathematics qua mathematics are increasingly being applied to advance our understanding of the causes, consequences, and alleviation of obesity. These applications do not merely involve routine, well-established approaches easily implemented in widely available commercial software. Rather, they increasingly involve computationally demanding tasks, use and development of novel analytic methods and software, new derivations, computer simulations, and unprecedented interdigitation of two or more existing techniques. Such advances at the interface of the mathematical sciences and obesity research require bilateral training and exposure for investigators in both disciplines. **To apply:** Visit our course site at **The Mathematical Sciences in Obesity**.

Spaces are limited to encourage more engagement among participants and with course faculty, so apply soon. Persons of all genders, race/ethnicities, and ability/disability statuses are strongly encouraged to apply.

SCHOLARSHIP OPPORTUNITES ARE AVAILABLE

We look forward to seeing you this summer! Sincerely,

David Allison, PhD, Indiana University Andrew Brown, PhD, University of Arkansas for Medical Sciences, Arkansas Children's Research Institute Diana Thomas, PhD, USMA West Point Military Academy Kevin Fontaine, PhD, University of Alabama at Birmingham

IWAP 2025 at NCSU

The 11th International Workshop on Applied Probability (IWAP 2025) will be held on June 9-13, 2025, at North Carolina State University, Raleigh, NC. The workshop will consist of plenary, invited and contributed talks during Monday-Thursday, June 9-12 and an excursion to the Greensboro Science Center on Friday, June 13.

The relevant website is <u>https://iwap2025.weebly.com/</u>.

The IWAP is among the major international conferences in applied probability, providing a forum for disseminating and discussing high-quality research in this field. IWAP 2025 will bring together researchers and scientists engaged in applied probability, covering methodology and applications from diverse fields, including mathematics, statistics, business, finance, decision processes, computer science, and the social and health sciences. Please see the conference website for a detailed list of topics, as well as information on the conference program, registration and housing. Note that the early bird registration deadline is **March 31, 2025**.

To submit an abstract for either an individual contributed talk or a topic contributed session, use the form found <u>here</u>.

Questions can be submitted to the conference organizers through the conference website (linked above).



Midwest Math Meetings Webinar Series

How to Prepare for Graduate School

Join the Mid-American Math Alliance for their first webinar on preparing for graduate school! Todd Thobe, Director of Student Services at The Ohio State University College of Public Health, will guide students through essential steps, including selecting the right program, understanding application requirements, budgeting, and securing funding. This virtual event is a must-attend for anyone considering graduate school.

Todd Thobe



Register Here!





Date: April 25, 2025 Time: 3:00 - 4:30 pm ET Place: Virtual Event (via Teams)

Todd Thobe is the Director of Student Services in the College of Public Health and has been with the college since 2016. During that time, Todd has assisted and oversees the recruitment and admissions processes for both the undergraduate and graduate programs for the College.

RUSIS@IU – Summer 2025 Javier Rojo – Director



Eligibility

* Students majoring in mathematics, computer science, statistics, or related field who have had the calculus sequence and a course in linear or matrix algebra

Must not hold any undergraduate degree by the end of summer 2025. Must be a US citizen or permanent resident

Applications deadline is

April 21st, 2025 Application can be requested from

jrojo@iu.edu



Grant support through the National Science Foundation and the National Security Agency

10- Week Summer Program

May 27th - August 1st 2025

The program is designed to prepare undergraduate students for graduate research careers in the Bio/ Statistical Sciences. Students will have the opportunity to learn about statistical and computational sciences and will engage in a research project in one of the following areas: Extreme Value Theory, Multiple Comparisons, Multivariate Survival Analysis, Modelling of the power grid, and other biomedical and Statistical Problems.

Students will receive a \$6,000 stipend for the 10 weeks and up to a \$650 to cover travel expenses. Lodging and meals will be provided for.



Paid Summer Research, Graduate Fellowships, and Graduate programs!

For Undergraduates

Paid Summer 2025 Undergraduate Research Placements: Over 700+ programs – NSF REU, NASA, NIH and other paid summer research opportunities for undergrads

For Financial Support in Graduate School

Fellowships and graduate programs in a wide variety of STEM disciplines

For tips on Applying and Associated Resources









WWW.pathwaystoscience.org Education and career training opportunities in Science, Technology, Engineering & Mathematics (STEM) SEARCH for a program ... find your future!

MSRI / Simons Laufer Mathematical Sciences Institute (SLMath) Programs

Register for Spring 2025 Scientific Workshops at SLMath

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

Probability and Statistics of Discrete Structures

• <u>Detection, Estimation, and Reconstruction in Networks</u> (slmath.org/workshops/1098): April 21-25, 2025

Other Workshops

<u>Critical Issues in Mathematics Education (CIME) 2025</u> (<u>slmath.org/workshops/1139</u>): April 2-4, 2025

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: <u>slmath.org/family-services</u>.

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.

THE MATH ALLIANCE

Member Institution

LECTURER POSITION AT DEPAUL UNIVERSITY

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, 2025. The initial appointment is for one academic year, but the position may be renewed for consecutive appointments.

Applicants may submit materials through MathJobs.org (<u>https://www.mathjobs.org/jobs/DePaul/PLNTT</u>).

For full consideration, application materials must also be submitted through Interfolio (https://apply.interfolio.com/150686).

DEPARTMENT CHAIR POSITION AT TEXAS SOUTHERN UNIVERSITY

The Department of Mathematical Sciences at Texas Southern University (TSU) invites applications for the position of Department Chair.

TSU, one of the largest Historically Black Colleges and Universities (HBCUs), is located just one block from the University of Houston and a five-minute drive from the Texas Medical Center and Rice University.

We seek candidates with outstanding records in teaching, research, and grantmanship. Prior administrative experience is preferred.

For more detailed information, please visit the TSU website (Texas Southern University Applicant Portal | CHAIR MATHEMATICS)