

Math Alliance News

February 2023
Volume 11 Issue 2

A publication of the Corporation for the National Math Sciences Alliance



Building Future Faculty Program NCSU

March 29-31

ADJOINT Workshop

MSRI Berkeley, CA

June 19-30

JSM2023

Ontario, Canada

August 5- 10

2023 Field of Dreams
Conference

Georgia State

Univ.

Nov. 3-5

Thoughts from the Director...



David Goldberg

Executive Director of the Math Alliance

March seems to be coming in like a lamb here in West Lafayette. It has been a very busy month. There is a lot to look forward to and report, but I am going to keep it extra brief this time.

- F-GAP will be starting this week!! Mentors remember **you** have to nominate your students! Look for the letter coming very soon. Scholars, if you are going to finish a degree between January and August of 2024, ask your Mentor if you are ready for F-GAP. Also, students, when you're nominated make sure you apply right away.
- The Career Paths Workshop will be held in June this year, with more details soon. F-GAP Scholars enrolled by April will be invited to this workshop along with their nominating Mentor!
- So happy to have been able to attend the Gulf States Alliance Conference Feb. 24-26! We also welcome the new Pennsylvania Math Alliance who held their first meeting Feb. 18.
- Make sure you check the <u>Mathematically Gifted and Black</u> honorees.
- There is more to catch up next month!

SAVE THE DATE!! 2023 Field of Dreams Conference

The 2023 Field of Dreams Conference will be held November 3-5 in Atlanta, GA. The conference will continue our tradition of providing students with information about doctoral study and professional opportunities in the quantitative sciences as well as strategies for applying to and succeeding in graduate programs. The conference brings together our Scholars, Mentors and other members of our Math Alliance community.

We are very excited that Georgia State University is hosting this year's Field of Dreams Conference. We hope many of our mentors, graduate students, and partners will be able to join us!

2023 Mathematically Gifted and Black Honorees

This years' honorees have been announced on the <u>Mathematically Gifted and Black Website</u>. The 2023 honorees that are listed below are part of our Math Alliance Community:

2/9- Jana Tally*	
2/10- Lawrence Udeigwe*	
2/16- John H. Johnson Jr.*	
2/19- Candice Reneé Price*†	
2/20- Abba B. Gumel*	
2/21– Karen Taylor*	
2/22– Chartese Jones†	
2/26– Marissa Kawehi Loving*†	
Rising Star– Tayler Fernandes Nuñez†	
*Math Alliance Mentor	†Math Alliance Scholar

2022 AAAS Fellows

AAAS proudly congratulates the newly elected 2022 Fellows! In October 2022, the AAAS Council elected 505 members as Fellows of AAAS. Below is the list of Math Alliance Mentors that were honored.

Mathematics

- **Abba B. Gumel**, *University of Maryland College Park*
- Talitha M. Washington, Clark Atlanta University / Atlanta University Center

Statistics

• **Jacqueline M. Hughes-Oliver**, North Carolina State University

For more information please see the <u>AAAS website</u>.

University of Virginia Mathematics Bridge Program

We are running a bridge program at the University of Virginia (more information can be found here: https://graduate.as.virginia.edu/b2d).

The application deadline is March 1, 2023.

This is a two-year long program of courses, mentoring, and research intended for talented and motivated students from underserved communities. The program provides personalized training to help students on their path to pursuing careers in the mathematical sciences.

MS program in Foundations of Data Science at NC State University

North Carolina State University is pleased to announce its new Master's program in Foundations of Data Science (MSFDS). This terminal degree program will help meet the demand for a new breed of data science professionals. Successful completion of the degree will equip graduates with both depth and breadth, balanced across three core disciplines lying at the heart of data science. Degree completion is based on course work and professional development activities, with no thesis or comprehensive examination requirement. In addition to a full-time on-campus option, part-time and online options are also available.

Priority deadline for Fall 2023 admission: February 28, 2023

For more information or to apply visit: https://go.ncsu.edu/fds

Lathisms Scholarship



This scholarship aims to support Hispanic/Latinx students interested in pursuing a career focused on mathematical sciences!

Eligibility:

- Be Latinx/Hispanic:
- Be interested pursuing a career in the mathematical sciences; and
- Be high school juniors/seniors, high school graduates, current / prospective college students, or current / prospective graduate students located in the United States.

We especially encourage undocumented individuals, TPS beneficiaries, and DACA recipients to apply!



More information:

https://www.lathisms.org/scholarships

DEPARTMENT OF MATHEMATICS / UNIVERSITY OF KANSAS

CRYPTOGRAPHY BOOT CAMP NSF-REU PROGRAM

FAST-PACED PREPARATORY PROGRAM

MODERN MATHEMATICAL CRYPTOGRAPHY

DEVELOP COMPUTER PROGRAMMING SKILLS

PROFESSIONAL DEVELOPMENT SESSIONS: GRADUATE SCHOOL, INDUSTRY CAREERS

JUNE 5 - JULY 14, 2023

LAWRENCE, KANSAS

APPLY ON MATHPROGRAMS.ORG

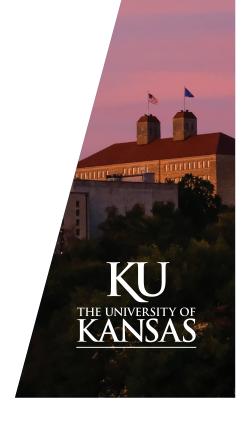
PREREQUISITE: FIRST COURSE IN LINEAR ALGEBRA

QUESTIONS?

Contact Emily Witt | witt@ku.edu

Supported by National Science Foundation CAREER DMS-1945611





Data Analytics for Science Immersion Experience (DASIE)

Hello from Carnegie Mellon University!

This summer we are partnering with **Microsoft** and **DOW** to bring the **Data Analytics for Science Immersion Experience (DASIE)** occurring in June 2023.

Our summer workshop features lectures from CMU faculty on Data Analytics, job opportunities and on-site tours presented by our corporate sponsors, and information about MS/PhD programs at CMU.

Our *free EASY* online <u>application</u> is now open for summer 2023 admission and the deadline is **February 28**, **2023** 11:59 p.m. EST.

Introductory seminars on data analytics will provide training in modern bioinformatics used across STEM academia and industry. Additionally, students will have opportunities to meet with and ask questions to corporate partners. Along with an in-person tour of DOW headquarters in Midland, MI, (transportation provided) to explore amazing career opportunities.

DETAILS:

Stipend	\$500
Duration	Up to 2 weeks
Travel	Round trip airfare or mileage
Room	Mix of doubles, triples, quads
Board	Daily breakfast, lunch, and dinner
Daily transportation	Pittsburgh - Students walk to lectures and events. Transportation provided to field trips. Midland - Transportation provided to students.
Hours	Lectures and planned activities are scheduled from 8:30 am - 7:00 pm Monday through Friday.
Sponsored trip	White water river rafting
Locations	CMU & Microsoft: Pittsburgh, PA DOW: Midland, MI

Any questions or concerns should contact **dasie@andrew.cmu.edu** for more information.



I-ACED

IMPROVING ACCESS TO CAREER & EDUCATIONAL DEVELOPMENT

Support for this work was provided by the National Science Foundation under awards 2130515, 2130328, 2130317, and 2130321.

Up to \$10,000 per year in scholarships for master's degrees

Technical tours plus paid internships and research experiences

Crossinstitutional
cohorts plus
mentoring
from faculty &
practitioners

Choose a technical track, then choose a degree program in that track at any partner institution: Jackson State University, Prairie View A&M University, Rice University, or Texas Southern University.



Biotechnology

Prairie View (MS)

- Computer Science
- Electrical & Computer Engineering
- Mechanical Engineering
- Chemical Engineering

Rice (Professional Masters)

- Bioengineering
- Chemical Engineering



Sustainability/Resiliance

Jackson State (MS)

Coastal Engineering

Prairie View (MS)

 Civil & Environmental Engineering

Texas Southern (MS)

- Environmental Toxicology
- Transportation Planning & Management

Internships, research experiences and mentoring supported in part by the Army Engineer Research & Development Center (ERDC).



Digital Twinning

Jackson State (MS)

- Computer Science
- Computational Data Enabled Science & Engineering

Rice (Professional Masters)

- Data Science
- Computational & Applied Mathematics
- Industrial Engineering

Texas Southern (MS)

- Computer Science
- Mathematics

Summer Fellowship for Undergraduates at the University of Colorado

The Center for Innovative Design and Analysis (CIDA) is pleased to offer 2 10-week fellowships (May 30-August 4, 2023). Students will spend 4-weeks on campus working alongside collaborative biostatisticians within CIDA then participate in CoSIBS for the last 6-weeks. This fellowship is available for participants from disadvantaged backgrounds. Learn if you meet the criteria.

The Colorado Summer Institute in Biostatistics (CoSIBS) is a 6-week program which exposes undergraduate and early-stage graduate students to diverse research in the medical and public health setting using a wide array of the field of biostatistics and data science. Click here to learn more about the CoSIBS program.

CoSIBS Program Dates: June 26-August 4, 2023

BENEFITS

- Interact with and be mentored by biostatisticians and clinical investigators that are engaged in biomedical research.
- Learn the principles of applied biostatistics and data science.
- Receive a stipend commensurate with a summer job to allow students to participate in CoSIBS who may not otherwise be able to afford not to work over the summer.
- Receive credit for 4 semester hours at the University of Colorado Denver.
- Tuition and fees paid for by the program.

Paid travel to and from Denver, room and meal stipend provided.

APPLICATION MATERIALS

- Personal statement of interest
- Electronic copies of college transcripts
- A letter of recommendation

APPLY TODAY

Completed applications are reviewed on a rolling basis from January through March. Final decisions will be made by April 30.

Department of Biostatistics and Informatics Colorado School of Public Health University of Colorado Anschutz Medical Campus CoSIBS@cuanschutz.edu

CoSIBS 2023 APPLICATION IS NOW OPEN

LIVE IN COLORADO THIS SUMMER





The Colorado Summer Institute in Biostatistics (CoSIBS) is now accepting applications for Summer 2023.

APPLY TODAY

This 6-week program exposes students to diverse research in the medical and public health setting using a wide array of the field of biostatistics and data science. Click <u>here</u> to learn more about the CoSIBS program.

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CENTER FOR INNOVATIVE DESIGN AND ANALYSIS (CIDA) EXTENDED FELLOWSHIP

Two fellowships providing additional research experience before and/or after CoSIBS are available for participants from disadvantaged backgrounds. <u>Learn if you meet the criteria.</u>

Spring 2023 Scientific Workshops at MSRI / SLMath

The Mathematical Sciences Research Institute (MSRI) in Berkeley, California, now becoming the Simons Laufer Mathematical Sciences Institute (SLMath) in 2022-23, welcomes registrations for our upcoming Spring 2023 workshops, listed below. SLMath workshops are free of charge to attend, thanks to the generous support of our funders, including the National Science Foundation.

(Please check <u>www.msri.org/workshops</u> for full details, as some workshop dates or details may be subject to change. An updated schedule of all talks will be posted by organizers in advance of each event.)

- March 13-17, 2023: Shimura Varieties and L-functions
- Organizers: Michael Harris (Columbia University), David Loeffler (University of Warwick), Elena Mantovan (California Institute of Technology), Christopher Skinner (Princeton University), Sarah Zerbes (ETH Zürich), Wei Zhang* (Massachusetts Institute of Technology)
- March 22-24, 2023: Critical Issues in Mathematics Education 2023: Mentoring for Equity Organizers: Pamela Harris (University of Wisconsin-Milwaukee), Abbe Herzig (AHH Consulting), Aris Winger (Georgia Gwinnett College), Michael Young (Carnegie Mellon University)
- April 17-21, 2023: Degeneracy of Algebraic Points

Organizers: Jennifer Balakrishnan (Boston University), Mirela Ciperiani* (University of Texas, Austin), Philipp Habegger (University of Basel), Wei Ho (University of Michigan), Hector Pasten (Pontificia Universidad Católica de Chile), Yunqing Tang (University of California, Berkeley), Shou-Wu Zhang (Princeton University)

• April 15-19, 2024: Recent Developments in Commutative Algebra

Organizers: Daniel Erman (University of Wisconsin-Madison), Linquan Ma (Purdue University), Karl Schwede* (University of Utah), Karen Smith (University of Michigan), Andrew Snowden (University of Michigan), Irena Swanson (Purdue University) * indicates lead organizers.

Workshop Funding: Established researchers, postdoctoral fellows, and graduate students are invited to apply for funding. Funding awards are typically made eight weeks before the workshop begins. Requests received after the funding deadlines are considered only if additional funds become available.

Resources for Workshop Attendees: To allow visitors to fully participate in its scientific activities, SLMath is pleased to be able to offer 1) a private room for nursing parents and 2) childcare grants to researchers with children under the age of 17. One of the objectives of SLMath's family support program is to contribute toward our goal of enabling the participation of women and members of other historically underrepresented groups in its programs, workshops, and summer graduate schools.

These flexible grants may be used for reimbursement of child care expenses incurred in Berkeley, or at home, including airfare for children and support for companion caregivers or hired childcare providers in Berkeley or to cover the costs of such help at home. Please note that, because these funds are taxable, they are available only to US Citizens and Permanent Residents, and foreign visitors with a visa status that allows for compensation, such as a J1. We are deeply grateful to our Family Support donors for their generosity.

SLMath is committed to the principles of Equal Opportunity and Affirmative Action. Students, recent PhDs, women, and minorities are particularly encouraged to apply.

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

REU Program on Applied Mathematics and Computational and Data Science 2023

The University of Texas Rio Grande Valley

School of Mathematical & Statistical Sciences

Participating students will receive:

- a stipend of \$5,400;
- accommodations;
- \$1000 for travel expenses, which are incurred in the roundtrip travel to Edinburg, TX or to present the research work at a conference; and
- \$900 for subsistence.







The School of Mathematical and Statistical Sciences (SMSS) is excited to announce applications for the NSF Research Experiences for Undergraduates (REU) site at The University of Texas Rio Grande Valley in Summer 2023.

The program will run from May 29 to July 29, 2023.

Applicants must be full-time undergraduate students pursuing a major in the mathematical or statistical sciences in Fall 2023.

Applicants must be US citizens or permanent residents of the United States in accordance with NSF regulations.

Review of applications will begin on March 15, 2023 and continue till spots are filled.

Topics:

1. Wave phenomena and mathematical modeling

Mentors: Dr. Erwin Suazo and Dr. Josef Sifuentes

2. Mathematical modeling of spatial processes and deep spatial learning

Mentors: Dr. Tamer Oraby, Dr. Hansapani Rodrigo, and

Dr. Michael Lindstrom

The University of Texas Rio Grande Valley *We encourage applications from women and underrepresented groups in Mathematics.



Submit your application

For more information send an email to erwin.suazo@utrgv.edu or visit the REU's website at https://www.utrgv.edu/smss-nsf-reu/index.htm

Please submit your application at: https://forms.office.com/r/TqhNGHQvGh



MATH ALLIANCE PARTNER INSTITUTION

Lecturer Positions in Mathematics and Statistics Announced at Georgia State University



The Department of Mathematics and Statistics at Atlanta campus of Georgia State University invites applications for two lecturer positions in mathematics and statistics beginning August 2023.

Essential Qualifications:

- * Ph.D. in mathematics, statistics of related field at time of appointment;
- * Ability to teach core undergraduate mathematics and statistics courses;
- * Knowledge and experience with instructional technology;
- * Ability to effectively deliver instruction in online and face-to-face formats;
- * Interest in teaching and mentoring students of diverse backgrounds.

Preferred Qualifications:

One or more years of effective full-time college/university teaching experience in mathematics or statistics. Lecturers at Georgia State University are full-time non-tenure track faculty with both teaching and service requirements who directly contribute to the mission of the university. Lecturers have the opportunity for promotion to Senior Lecturer and Principal Senior Lecturer. Our lecturers are full members of the department's intellectual community and leadership team. In mathematics and statistics, lecturers teach 12 credit hours per semester and primarily teach and coordinate lower division undergraduate courses including, but not limited to, college algebra, pre-calculus, calculus, elementary statistics, differential equations, and linear algebra.

Georgia State University, the largest university in Georgia, is an enterprising urban research university located in downtown Atlanta and home to one of the most diverse student bodies in the country. It is a national leader in innovative instruction and academic success of diverse populations. We strongly encourage applications from members of groups traditionally underrepresented in STEM. The College of Arts & Sciences supports faculty professional success through mentoring programs and representation of faculty from all ranks in college-level program development. GSU is an institutional member of the National Center for Faculty Development & Diversity.

The department currently consists of 22 tenure track faculty, 12 lecturers, and 3 academic professionals (of various ranks). The department offers B.S., M.S., and Ph.D. degrees in mathematics and statistics. For more information please visit our website at https://www.mathstat.gsu.edu/.

Applications should be submitted directly to http://www.mathjobs.org.

The following items are required:

- 1. Application cover letter
- 2. Curriculum vitae
- 3. Teaching statement with evidence of aptitude or ability to teach at the undergraduate and graduate levels with a diverse student body, including the mentoring of women and under-represented minorities (at most 2 pages)
- 4. Transcripts of graduate work
- 5. Student evaluations and other evidence of success in instruction, if applicable
- 6. Three letters of reference (two must address candidate's instructional abilities).

Review of applications will begin on March 20, 2023, and will continue until positions are filled. An offer of employment will be conditional upon background verification. Georgia State University is an Equal Opportunity Employer and does not discriminate against applicants due to race, ethnicity, gender, veteran status, or on the basis of disability or any other federal, state, or local protected class.



MATH ALLIANCE PARTNER INSTITUTION

Tenure-track Assistant Professor Position in Statistics Announced at Georgia State University



The Department of Mathematics and Statistics at Georgia State University invites applications to fill a tenure-track Assistant Professor position in Statistics with a start date of August 2023.

Candidates in all areas of statistics are encouraged to apply. At the time of appointment, applicants should have a PhD in Statistics, Biostatistics, Data Science, or a closely related field. Preferred candidates will be expected to demonstrate a commitment to excellence in research and teaching in applied statistics and data science, as well as mentoring undergraduate and graduate students of diverse backgrounds, and have a strong desire to work in a cross-disciplinary, collaborative environment.

The Department offers BS in Mathematics, MS in Mathematics with no concentration or concentrations in Bioinformatics, Biostatistics, Discrete Mathematics, Scientific Computing, Statistics, as well as Statistics and Allied Field, and PhD in Mathematics and Statistics with concentrations in Mathematics, Bioinformatics, and Biostatistics. Faculty members in the department established nationally and internationally recognized research programs in both mathematics and statistics, including applied statistics, biostatistics, data science, dynamical systems, complex networks, machine learning, inverse problems, mathematical biology, optimization, computational mathematics, systems biology, modeling neural, cardiovascular, and multi-organ systems, physical and biomedical image analysis, as well as in the collaboration with other GSU departments in epidemiology, pathogen genetics, immunology, and inflammation, and translational biomedical sciences. For more information please visit our website at https://www.mathstat.gsu.edu/.

GSU, the largest university in Georgia, is an enterprising urban research university located in downtown Atlanta and home to one of the most diverse student bodies in the country. It is a national leader in applying innovative measures to drive student success and research growth. Georgia State University is committed to diversifying its faculty and generating innovative research. We strongly encourage applications from members of underrepresented groups.

Applicants should submit: 1) a cover letter outlining qualifications and research interests, 2) a curriculum vitae with a publication list and (optional) a teaching and funding list, 3) a research statement, including current and future research agenda, and 4) a teaching statement with evidence of aptitude or ability to teach at the undergraduate and graduate levels with a diverse student body, including the mentoring of women and under-represented minorities. All materials should be submitted online at http://www.mathjobs.org.
Applicants should also arrange for three letters of recommendation to be submitted online at http://www.mathjobs.org.

A formal review of applications will begin on February 8, 2023, and will continue until the position is filled. An offer of employment will be conditional upon background verification. Georgia State University is an Equal Opportunity Employer and does not discriminate against applicants due to race, ethnicity, gender, veteran status, or on the basis of disability or any other federal, state, or local protected class.



MATH ALLIANCE MEMBER INSTITUTION

Multiple Positions Announced at the University of Arizona



The Department of Mathematics at the University of Arizona has multiple openings at the postdoctoral and tenure track levels, listed below.

- **Postdoctoral Research Associate I,** Mathematics or a related field: https://www.mathjobs.org/jobs? joblist-242-20872
- **Postdoctoral Research Associate I,** RTG in Applied Mathematics and Statistics for Data-Driven Discovery: https://www.mathjobs.org/jobs?joblist-242-21300
- Assistant/Associate Professor, Applied Mathematics, broadly construed: https://www.mathjobs.org/jobs?joblist-242-21051
- Assistant/Associate Professor, Mathematics: https://www.mathjobs.org/jobs?joblist-242-21052
- Assistant/Associate Professor, Statistics and Data Science, broadly construed: https://www.mathjobs.org/jobs?joblist-242-21053

For further inquiries, please contact Alejandra Gaona, agaona@math.arizona.edu, 520-621-2868.