

THE MATH ALLIANCE



DR. DAVID GOLDBERG
Director

The end of April brings the end of semester for most of us and we look forward to the summer with great anticipation. I hope everyone is going to get a chance to pursue some interests in the coming months, whether it is research, travel, a hobby, or whatever will bring some sense of fulfillment and refreshment to your life before we move back into the academic calendar in the fall.

This is always an exciting time in the Math Alliance, as we hear about Scholars getting into graduate school, and some of us hear that Scholars that we mentored have completed a doctorate, or MS degree, or learn of a great first job placement. Rebecca works hard throughout the year to try to track Scholars' progress towards degrees and careers, and it is one of our strengths that our data is as complete as it is. We are still missing data on several Scholars, so it would be great to hear from Scholars where they are, and Mentors, take a moment to let us know if you hear from your Scholars so we can update our information.

We have several activities on the horizon. The [Career Paths Workshop](#) is coming up at IMSI in Chicago, June 6&7, and there is still a chance **that if you nominate a student for F-GAP** they, and you, can be nominated for the workshop. Note, there is a **new protocol** where the Mentor has to **nominate the student separately for the workshop** at the above IMSI website. We are hoping this will be our biggest FGAP cohort ever. The other big event coming up for us is a meeting we are part of at the Simons Foundation in May which will bring together many stakeholders (AMS, ASA, MAA, SIAM, AMATYC, NAM, CAARMS, AWM, EDGE, TPSE Math, CBMS...) to discuss the best way for the whole profession to institutionalize, within itself, a structure which will meet students where they are as they exit high school and provide pathways to doctorates and careers in the quantitative sciences. This is an exciting development, and the meeting holds a lot of promise.

We continue to see increasing legislative focus on DEI in many states, including my own state of Indiana. One person recently synthesized the sad irony in this movement is that it identifies Diversity, Equity, Inclusion, and Belonging, as ideas which are divisive, as opposed to racism, sexism, homophobia, Islamophobia, etc., which are actually divisive. DEI efforts are aimed at breaking down barriers that divide us. Our modest goal is to bring people together to provide mentoring for students who would not receive such mentoring otherwise, and to make our professions more inclusive of everyone. I don't see why anyone should be threatened by that.

What's Happening Next?

- **MAA MathFest 2023** Indianapolis, IN Aug. 7-10 2024
- **2024 Joint Statistical Meetings (JSM 2024)** Portland, OR
Aug. 3-8, 2024
- **STATFEST 2024** Columbia University- 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!

AUG 04 - 07, 2024 IN PORTLAND, OREGON

The 2024 Diversity Mentoring Program (DMP) brings historically-underrepresented BIPOC (African/African-American, Hispanic/Latino, and Native American) graduate and undergraduate students, post-doctoral scholars, and junior professionals together with senior-level statisticians and faculty in academia, government, and the private sector in a structured program at the annual Joint Statistical Meetings.



CHOOSE AN OPTION:

I ONLY WANT TO ATTEND THE EVENT AND EXPERIENCE THE GREAT PROGRAMMING.

Please scan the QR code below and fill out the very **short** Attendance Only Application. We will do our best to accommodate all attendee only applicants.



I WANT TO ATTEND THE PROGRAM AND I WANT TO GET MATCHED WITH A MENTOR!

Fantastic! While we cannot match everyone with a mentor, we do our best. Please fill out the Attendance and Mentee Application. Scan the QR code below.

IMPORTANT DATES

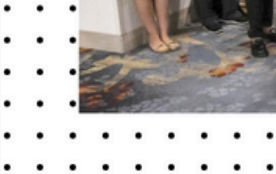
MAR 31 Forms go live on the website. Scan the QR code.

MID JUNE We will inform you as to the decision of your application.

MAY 31 The last day to fill out the Attendance and Mentee Application.

AUG 04 We will welcome you in Portland for DMP 2024!

WEBSITE



NIH-funded short courses at Indiana University

Indiana University School of Public Health-Bloomington is partnering with the U.S.M.A. West Point Military Academy, University of Alabama at Birmingham, University of Arkansas for Medical Sciences, Arkansas Children's Research Institute to bring you short courses in the fields of obesity, mathematics, and causal inference. Both courses are meant to familiarize participants with the language, techniques, and case applications found in the field. The courses also strive to create collaboration among early investigators and researchers from different disciplines.

The Mathematical Sciences in Obesity Research

Dates: Monday, July 8 to Friday July 12, 2024

Format: In person at the B1G Ten Conference Center (Rosemont, IL)

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. [Apply Here](#)

Strengthening Causal Inference in Behavioral Obesity Research

Dates: Monday July 29 through Friday August 2, 2024

Format: In person at University of Arkansas for Medical Sciences and Arkansas Children's Research Institute (Little Rock, AR)

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. [Apply Here](#)

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

Please email Cynthia Herrera Alley (cherrera@iu.edu) with any questions.

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.

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



Bernard Lidický

*Professor and
Associate Chair*

lidicky@iastate.edu

(515) 294-8136

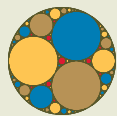


Jason McCullough

Associate Professor

jmccullo@iastate.edu

(515) 294-8150



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

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





DOE's Office of Science Is Now Accepting Applications for Fall 2024 Undergraduate Internships

Students Will Conduct Research and Technical Projects at National Laboratories

Applications are currently being accepted for the Fall 2024 term of two undergraduate internship programs offered by the **Department of Energy** (DOE) Office of Science: the Science Undergraduate Laboratory Internships (SULI) program and the Community College Internships (CCI) program. The application deadline is May 22, 2024, at 5:00 p.m. ET. Through SULI and CCI, undergraduate students and recent graduates discover science and technology careers at the DOE national laboratories and gain the experience needed to transition from intern to employment. Interns work directly with national laboratory scientists and engineers, assisting them on research or technology projects that support the DOE mission. SULI is open to full-time students attending 4-year institutions and community colleges or recent graduates within two years of receiving their bachelor's degree or associate degree, while CCI is exclusively for community college students. Both programs are stipend-based and offered three times annually in Fall, Spring, and Summer terms.

Three workshops are planned to provide strategies for submitting a compliant application and to learn about the internship experience from the voices of CCI and SULI alumni. Two workshops will introduce the program and application process for each program, followed by the final workshop which will review the application process for each program before highlighting the research opportunities and internship experience at the DOE national labs through an alumni panel discussion.

- April 10, 2024, from 1:30 – 2:30 pm EDT for CCI - [Register here](#)
- April 16, 2024, from 2:00 – 3:00 pm EDT for SULI - [Register here](#)
- April 24, 2024, from 1:30 – 2:30 pm EDT for Application Review and SULI/CCI Alumni Panel - [Register here](#)

SULI and CCI are managed by the Office of Workforce Development for Teachers and Scientists (WDTs) in the Office of Science. More information can be found at the [WDTs website](#).



COLUMBIA UNIVERSITY
DEPARTMENT OF STATISTICS



COLUMBIA | MAILMAN SCHOOL
OF PUBLIC HEALTH
BIostatISTICS

SAVE THE DATE

STATFEST 2024

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.



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).

mathalliance@purdue.edu | www.mathalliance.org