

### NATIONAL ASSOCIATION OF MATHEMATICIANS

### NEWSLETTER

Fall 2023 | Vol: 54 | Issue 4

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### **ANOTHER SUCCESSFUL MATHFEST**

A quick group shot from MathFest XXXIII. The event was held at Clark Atlanta University in Atlanta Georgia



### The National Association of Mathematicians (NAM)

publishes the NAM Newsletter four times per year.

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NAM's History and Goals: The National addressed to Dr. Association of Mathematicians, Inc.

NAM) was founded in 1969. NAM, a nonprofit professional organization, has always had as its main objectives, the promotion of excellence in the mathematical sciences and the promotion and mathematical development of under-represented minority mathematicians and mathematics students. It also aims to address the issue of the serious shortage of minorities in the workforce of mathematical scientists.

NAM's National Office, subscriptions and membership: National Association of Mathematicians, 2870 Peachtree Rd NW #915-8152, Atlanta, GA 30305; e-mail: info@nam-math.org.

NAM's Official Webpage: http://www. nam-math.org

Newsletter Website: The NAM website has a list of employment as well as summer opportunities Bolanle Salaam Ph.D. Candidate (University of on the Advertisements page. It also features past editions of the Newsletter on the Archives page.

> Letters to the editor and articles should be Zerotti Woods via e-mail to (known as editor@nam-math.org.

### From the Editor



Hello friends.

We are welcomed by a new and exciting academic year! I am sure that all of us are in the thick of a new year's hustle and bustle. Although I am a person whose full-time position is not in academia, I also find myself feel-

ing the beginning of the academic year in a major way with a new prep in my part-time position as a lecturer and a few new projects in the lab that are ramping up.

Hang in there my friends, we will make it! I want to apologize about the last issue newsletter math problem. It had a few issues in the assumptions that made the statement not true. I want to thank Barry Henaku of the University of Michigan and Kevin Iga of Pepperdine University for pointing this out. They definitely get this issue's bragging rights and I did my best to make sure that the problem is free of mistakes in this issue. Enjoy! Let me know what you think!

> Cheers. Zerotti



### Publishing in the NAM Newsletter

**Submissions:** The *NAM Newsletter* is a quarterly publication. Articles and letters should be submitted electronically via the website. For advertisements, articles, and announcements, please visit

https://nam-math.org/submitting-advertisements-and-articles.

### Advertising:

NAM Online Advertisement Policy: As a part of its Newsletter Advertising, a copy of the advertisement will be placed on the web during the period it appears in the quarterly Newsletter - at the Job Openings website.

NAM Newsletter Print Advertisement Policy for Non-institutional Members: Receipt of your announcement will be acknowledged. You will be billed after the advertisement appears. A copy of the advertisement will be placed on the NAM Newsletter website during the period it appears in the NAM Newsletter. To estimate the page size, use 12 point font on a standard size page.

1. One issue advertising

A. One-fourth page	\$200
B. One-third page	\$300
C. One-half page	\$400

D. Two-thirds page	\$500
E. Three-fourths page	\$600
F. One whole page	\$800

2. Consecutive, multiple issue advertising

Each consecutive issue thereafter 75% of the first issue charge.

NAM Newsletter Print Advertisement Policy for Institutional Members: Receipt of your announcement will be acknowledged. You will be billed after the advertisement appears. Institutional Members of NAM are entitled to one 1/4 page advertisement at 1/2 the regular price during the fiscal year of their membership. Additional advertisements follow the above stated cost structure. A copy of the advertisement will placed on the NAM Newsletter website during the period it appears in the NAM Newsletter. To estimate the page size, use 12 pt font in your favorite word processing program on a standard size page.

**Deadlines:** The deadlines for submissions and advertisements can be found in the following table.

Edition	Deadline	
Spring	March 1	
Summer	June 1	

Edition	Deadline
Fall	September 1
Winter	December 1

Advertisements should be submitted electronically via the website athttps://nam-math.org/submitting-advertisements-and-articles.

We reserve the right to reject any advertising that is not consistent with the stated goals of NAM, or that is in any way deemed inappropriate.

Revised 11/19

<sup>\*</sup>advertisements over one page are pro-rated

### 2023 NAM Undergraduate MathFest XXXIII

by Zerotti Woods

NAM's Undergraduate MATHFest XXXIII was a very successful three-day event held at Clark Atlanta University. The event was held September 22nd-24th, 2023. NAM Undergraduate MATHFest is held annually to encourage students to pursue advanced degrees in mathematics and mathematics education. The conference is geared for undergraduates from Historically Black Colleges and Universities (HBCUs), although all are welcome to attend.



Various moments from MATHFest XXXIII including problem time, The J. Ernest Wilkins Lecture, a quick group photo, and the graduate school fair

The conference included a host of events including student talks given by undergraduate and graduate students, poster presentations given also given by undergraduate and graduate students, a graduate school fair, problem time with Drs. Cooper and Dr. Ivy, and The J. Ernest Wilkins Lecture given by Dr. Talithia Williams (Harvey Mudd College). The title of her talk was "The Power of Storytelling: Engaging the Public in Data Science". There was also a graduate student panel that consisted of current graduate students discussing their experience and giving advice to undergraduate students who were in attendance. Student engagement was impressively high throughout the event and an impressive body of undergraduate and graduate-level research was presented during the conference.

### At MATHFest XXXIII, student oral presentations were given by:

- Jakini Kauba (Clemson University) How to Build Your Village
- Kayla Davie (University of Maryland College Park) A New Approach to Reduced Order Modeling for Parametrized PDE-Constrained Optimization Problems
- Kimberly Hadaway (Iowa State University) Directional Derivative of Kemeny's Constant\* Best Graduate Student Oral Presentation Award Winner
- tahda queer (City University of New York) Colorful Turán Theorems for the Vertex Disjoint Union of Rainbow Triangles
- Erik Imathiu-Jones (California Institute of Technology) Trace Ideals of Numerical Semigroup Rings\* Best Undergraduate Student Oral Presentation Award Winner
- Kulsum Saber (Georgia State University) A simplified mathematical model for erosion and deposition in a porous medium
- Natasha Tucker (North Carolina State University) Healthy Ways to Frame your Academic Experience
- Aleyah Dawkins (North Carolina State University)  $Edge\ condition\ for\ Hamiltonic-ity\ in\ Kr+1$   $free\ graphs$
- Haniyeh Fattahpour (Georgia State University) Investigating the Influence of Nutrient Concentration and Scaffold Flexibility on Tissue Growth within Tissue Engineering Scaffold Channels
- Dasia Singleton (Elizabeth City State Uniersity) Eigenface Image Processing Using Linear Algebra
- Laura Prince (Clark Atlanta University) Biomarkers for Prediabetes and Type-2 Diabetes
- Gabrielle Morgan (Elizabeth City State University Applications of Algebra and Calculus: Solving Optimization Problems
- Ciera Sherill (Spelman College) Project HPC: The Journey of Data Cleaning
- Hamed Karami (Georgia State University) Perfect Colorings of Famous Graphs
- Thea Nicholson (Xavier University of Louisiana) Elliptic Curves: Minimal Discriminants and Additive Reduction

- Tesfa Asmara & Aniyah Stephens (Pomona & Hartwick Colleges) Abelian Division Fields Over Real Quadratic Fields
- Paul Joseph (Georgia State University) A Simplified Mathematical Model for Cell Proliferation in a Tissue- Engineering Scaffold
- Jakini Kauba (University of North Carolina Greensboro) Topological Analysis of U.S. City Demographics
- Sima Moshafi (Georgia State University) Cake Buildup and its Influence on Flow and Transport within Pleated Membrane Filters
- Joy Bentley (Emory University) An Introduction to Deblurring Images Using Linear Algebra

### Undergraduate poster presentations were given by the following students:

- Evan Asuncion (United States Military Academy) Lissajous Patterns for UAS Search
- Jordan Banks (Howard University)) Gauss-Markov Modeling of GPS Ephemeris and Clock Error
- Jillian Cervantes (University of Wisconsin Milwaukee) On the Domination Number for a Family of Semiregular Tiling Graphs
- Juliet Ekoko (Howard University) Making The Precise Definition Of The Logarithmic & Exponential Functions More Intuitive
- Isaac Folorusno (United States Military Academy) MA206Distribution
- John Ku (United States Military Academy) Development of a Domain-Specific Dictionary Using Natural Language Processing
- Josh Kyei (Morehouse College) Positive Semidefinite Leaky Zero- Forcing
- Faith Massey (American University) Impact of COVID-19 on College Rankings: A Pre and Post Analysis of Top Institutions
- Katherine Lovelace (The Ohio State University) Optimizing Feature Extraction Methods and Machine Learning Models Using Topological Data Analysis in Detecting Gravitational Waves
- Elliot Miller (The University of Alabama) Modelling Neuronal Oscillations in Degenerative Brain Diseases



- Anna Rittenhouse (Clark Atlanta University) Assessing the Robustness of VBMC for Extracting Parameters in Differential Equations\* Best Undergraduate Student Poster Award Winner
- Sheyla Street (United States Military Academy) Social Bias and Image Tagging: Evaluation of progress in state-of-the-art models
- Marlon Valverde-Suazo (Dominican University New York) Yield Prediction and Data Processing
- Zoe Winston (United States Military Academy) Metabolomics Analysis of Osteoarthritis

### Graduate poster sessions were given by the following students:

- Victor Hughes (Purdue University) The Anisotropic Transmission Eigenvalue Problem with a Conductive Boundary
- Emeka Peter Mazi (Georgia State University) A mathematical modeling approach for understanding deposition and erosion dynamics in branching pore structure\* Best Graduate Student Poster Award Winner
- Lawan Wijayasooriya (Georgia State University) Dynamic Entrainment: A datadriven process approach for synchronization in the Hodgkin-Huxley model



### More Images From MATHFest XXXIII!!!



MATHFest XXXIII Was a Major Success. Many Thanks To Everyone Who Assisted With a Successful Conference



### IS LOOKING FOR VOLUNTEERS

VOLUNTEER OPPORTUNITIES OPEN TO NAM MEMBERS IN GOOD STANDING

### **PROGRAMMING COMMITTEE**

**HELP ORGANIZE NAM EVENTS** 

### **MEMBERSHIP COMMITTEE**

**CULTIVATE NAM MEMBERSHIP** 

### **PUBLICITY & PUBLICATIONS COMMITTEE**

HELP PRODUCE NAM'S NEWSLETTER, WEBSITE, SOCIAL MEDIA, AND BLOG

### NOMINATIONS COMMITTEE

**SELECT NAM AWARD RECIPIENTS** 

### FINANCE COMMITTEE

**KEEP NAM'S FINANCES IN ORDER** 

### **ELECTIONS COMMITTEE**

**KEEP NAM'S ELECTIONS RUNNING SMOOOTHLY** 

### BYLAWS TASKFORCE

ASSIST WITH REVIEW OF AND VOTING FOR NEW BYLAWS

### **WEBINAR FACILITATORS**

**FACILITATE MONTHLY GRAD STUDENT DISCUSSION GROUPS** 

AT LEAST A ONE YEAR COMMITMENT IS EXPECTED OF ALL COMMITTEE MEMBERS, TASKFORCES ARE USUALLY SHORTER COMMITMENTS

CONTACT PRESIDENT [AT] NAM-MATH. ORG FOR MORE INFORMATION OR FOR A VOLUNTEER ASSIGNMENT



### INSERT NEW LOGO HERE

# Calling All NAM Creatives

### **NEW NAM LOGO NEEDED.**

The original NAM logo, as pictured above, has served the organization well. Now, it's time for a new logo, and we're calling on our members for ideas!

## Send designs for consideration.

Send ideas, designs, and/or submissions to the Publications and Publicity Committee at EDITOR@NAM-MATH.ORG.

# UNDERGRAD RESEARCHERS:

SEE YOUR WORK IN PRINT.

SUBMIT TO THE NAM NEWSLETTER.

SHOWCASE YOUR
WORK IN A
PROFESSIONAL
NEWSLETTER.

EMAIL THE
NEWSLETTER
EDITOR FOR MORE
INFORMATION.

INCREASE YOUR PROFESSIONAL VISIBILITY.

~[THIS COULD BE YOU.]



Send all inquiries to: editor@nam-math.org

DEMONSTRATE
YOUR WRITING
CAPABILITIES.

### NEWSLETTER MATHEMATIC PROBLEM

Want your name in the next newsletter? Want to challenge yourself with a tough mathematical problem? Solve the 54.1 NAM Newsletter Mathematics Problem

XER YER Probability distributes Pr(X,Y)

We want a function f(x) for predicting f(x)Minimize E(L(Y,G(x)))Claim find f(x) star Min E(|Y-f(x)|)Claim find f(x) star Min E(|Y-f(x)|)Claim find f(x) star Min E(|Y-f(x)|)Proof: Use total Expectation

Ref) =  $E(|Y-f(x)| - E_x[E_{Y|x}|Y-f(x)|]$ Gram  $E_y[Y|X|Y-C|X=x]$  fet P(Y) be the of Y Granic  $E_y[Y|X|Y-C|X=x]$ of Y Granic  $E_y[Y|X|Y-C|X=x]$ 

Califord Grad Student

What's at stake? Bragging
What's at stake? Bragging
and
what's at stake? Bragging
and
rights and your name and
rights and your name next NAM
rights and your newsletter.
newsletter.

Q.E.D

Email your proof to editor@nam-math.org

+

### 54.4 NAM Newsletter Mathematics Problem

A well-known and efficient algorithm for finding the largest eigenvalue/vector is the power iteration algorithm, which can be summarized as follows:

- INPUTS:  $A \in \mathbf{R}^{n \times k}$
- OUTPUTS  $\lambda \in \mathbf{R}, v \in \mathbf{R}^{k \times 1}$  the largest eigenvalue/vector
- $v_0$  is a random vector in  $\mathbf{R}^{k\times 1}$
- While  $||(A \lambda_i I)v|| > \epsilon$

$$-v_{i+1} = Av_i$$

$$-\lambda_{i+1} = ||v_{i+1}||$$

$$-v_{i+1} = \frac{v_{i+1}}{\lambda_{i+1}}$$

$$-i=i+1$$

Prove that the following is an analogous algorithm for singular values/vectors

- INPUTS:  $A \in \mathbf{R}^{n \times k}$
- OUTPUTS:  $\sigma \in \mathbf{R}, v \in \mathbf{R}^{k \times 1}, u \in \mathbf{R}^{n \times 1}$  the largest singular-value/vectors
- $v_0$  is a random vector in  $\mathbf{R}^{k\times 1}$
- While  $||u_i^T A v_i \sigma_i|| > \epsilon$

$$-$$
 If  $0=i \mod 2$ 

$$* u_{i+1} = Av_i$$

$$* \sigma_{i+1} = ||u_{i+1}||$$

$$* u_{i+1} = \frac{u_{i+1}}{\sigma_{i+1}}$$

- Else

$$* v_{i+1} = u_i^T A$$

$$* \sigma_{i+1} = ||v_{i+1}||$$

$$* v_{i+1} = \frac{v_{i+1}}{\sigma_{i+1}}$$

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### THE LEGACY OF EVELYN BOYD GRANVILLE (1924 - 2023)

Author: J.L. Huston



An internationally recognized mathematician, computer scientist, scholar, educator, mentor, and pioneer has departed. Dr. Evelyn Boyd Granville, who was the second African American woman to earn a PhD in mathematics (Euphemia Lofton Haynes, Catholic U, 1943; Evelyn B. Granville, Yale U, 1949; Marjorie L. Browne, U Michigan 1950), died peacefully at her home in Silver Spring, Maryland on June 27, 2023, at age 99. She performed pioneering work in academia, government, and in industry. Dr. Evelyn Boyd was born on May 1, 1924, in Washington, D.C., and she is the second daughter of William and Julia Walker Boyd. Evelyn was one of five valedictorians at Dunbar High School in 1941, a segregated but academically competitive school for Black students in Washington, D.C.

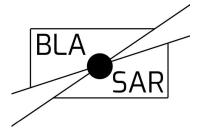
With financial support from her mother, aunt, and others, Evelyn entered Smith College in the fall of 1941 with \$1100 dollars to pay her first year's expenses. During the remaining years, Smith College awarded her a partial scholarship and she did work on campus and summer work in Washington, D.C. to help support her remaining expenses. She was elected to Phi Beta Kappa at Smith College and graduated summa cum laude in 1945. Encouraged by receiving a graduate scholarship and two fellowships, she entered Yale University in Fall 1945, where she studied functional analysis. She earned her doctorate in 1949, with a dissertation entitled: "On Laguerre Series in the Complex

Domain." After earning her PhD in mathematics, Dr. Boyd completed a postdoctoral fellowship for a year at New York University Institute for Mathematics, performing research and teaching.

Dr. Boyd accepted a teaching position at Fisk University in 1950, a historically Black college in Nashville, Tennessee. She remained at Fisk University for two years, and during this time she taught Vivienne Malone Mayes and Etta Zuber Falconer, two Black women who later earned PhDs in mathematics. In 1952, Dr. Boyd left academia and returned to Washington, D.C. to accept a position at the National Bureau of Standards. In 1956 Dr. Boyd was recruited by the International Business Machines Corporation (IBM), where she was seated before a 650 Magnetic Drum Data-Processing Machine and asked to do computer programming. Three years later, the National Aeronautics and Space Administration (NASA) was formed, and the fledgling agency contracted with IBM to help launch satellites and manned capsules in outer space. Dr. Boyd was assigned first to Projects Vanguard and Mercury, writing programs to track the orbital trajectories of satellites and rockets. Later, she joined Project Apollo, providing technical support to the engineers working to make possible a lunar landing. In all her positions in the private sector, she was often the only woman and the only Black person.

After nearly two decades in the private sector, Dr. Boyd returned to academia after applying for a position in the mathematics department at California State University Los Angeles (CSU-LA). She later became a full professor at CSU-LA, where she taught math, computer science and wrote textbooks on how to teach mathematics before retiring in 1984. She and her second husband, Edward V. Granville, a realtor, left Los Angeles to live on a rural 16-acre plot of land in East Texas. In Tyler, Texas, she taught in the public schools, at Texas College, and at the University of Texas at Tyler. After Edward died, Dr. Boyd returned to Washington, DC in 2010 for her final retirement.

Dr. Evelyn Boyd Granville received many honors and recognitions for her pioneering and excellent work, including three honorary doctorates (the first Black woman to get one from Smith College), recognitions by the National Academy of Science, three awards/recognitions from NAM: NAM's Lifetime Achievement (1996), NAM's Golden Anniversary Legacy Award (2019) and honored with the naming of the NAM Haynes, Granville, Browne PhD Session for Recent PhD recipients. Dr. Boyd will always be honored and remembered by many.



### 2023 Black in STEM Virtual Conference

The **BL**ack Academic Support and Advisory gRoup (**BLASAR**) is enthusiastic to announce the 2023 Black in STEM Virtual Conference, set to take place on **Oct 16th**!

The goal of this conference is to promote the work of Black lead STEM organizations, get feedback about the Black experience in STEM and provide an environment for participants to share about their work and actively network with one another.

The agenda of the conference is broadly split into the following 3 events.

- 1. Webinar Speakers (Zoom)
- 2. Moderated Discussions (GatherTown)
- 3. Poster Session (GatherTown)

This conference is meant to make space for and support Black identifying scholars, but the Webinar presentations on Zoom is open to anyone who is interested!

In preparation for the conference please review the following links and submit the Registration Form if you wish to participate. **We ask that you register by Oct. 8th.** 

- Summary of BLASAR
- Detailed Conference Agenda
- Conference Registration Form

Thanks to the generous funding of Cal-Bridge, IGEN and Fisk-Vanderbilt this conference is free for all participants and we will also be reimbursing a single meal up to \$20 for those who join event 2 and/or 3. After the conference the webinar presentations will be uploaded to Youtube and the posters to a Zenodo repository.

This conference was organized for academic levels ranging from precollege (end of highschool) to postdoctoral in mind. Funding/Promotion is handled in collaboration with the Cal-Bridge, IGEN, STEM PUSH and Fisk-Vanderbilt programs. To help the conference planners keep a handle on the the size of the conference we ask that no one redistribute this flyer outside the scope of these organizations or the speaker organizations without consent from one of the organizers. **We look forward to the date and hope you can join us!** 

# NAM Programs at the 2024 Joint Mathematical Meetings

### NAM-SIAM Special Session on Quantitative Justice

Wednesday Jan 3, 1:00-5:00PM

Claytor-Woodard Lecturer, Dr. Shelly Jones

Thursday Jan 4, 2:15 - 3:20PM

Haynes-Granville-Brown Session, Friday Jan 5, 8:00 - 12:00PM

Cox-Talbot Address, Dr. Ranthony AC Edmonds

Friday Jan 5, 7:45PM - 8:45PM

NAM Business Meeting, Saturday Jan 6, 10:30 – 11:30AM

Journeys of Black Mathematicians - Film Screening and Panel

Saturday Jan 6, 12:00-1:30pm

### Job Openings

### Tenured faculty position at Harvard University Department of Mathematics

Candidates are invited to apply for a tenured professorship in the field of mathematics. The appointment is expected to begin on July 1, 2025. The tenured professor will be responsible for teaching at the undergraduate and graduate levels. We are seeking candidates who have a strong research record and a strong commitment to undergraduate, graduate teaching, and advising.

Basic qualifications: Candidates are required to have a doctorate.

Additional qualifications: Candidates should have evidence of intellectual leadership and impact on the field and potential for significant contributions to the department, University, and wider scholarly community.

Candidates are encouraged to submit their materials through Harvard ARIeS https://academicpositions.harvard.edu/postings/12491) before December 1, 2023.

Applicants should submit the following materials:

- 1. Cover letter
- 2. Curriculum vitae
- 3. Research statement

- 4. Teaching statement/advising statement (describing teaching philosophy and practices)
- 5. Statement describing efforts to encourage diversity, inclusion, and belonging, including past, current, and anticipated future contributions in these areas.
- 6. Authorization form (This authorization will only be used for the finalist after receiving a contingent written offer, view the definitions)

Applicants may also directly contact Irene Minder (irene@math.harvard.edu) with questions concerning this search process.

Harvard University is committed to fostering a campus culture where everyone can thrive and experience a sense of inclusion and belonging. Community members are encouraged to model our values of integrity, responsible mentorship, equity, and excellence no matter where they are. To support this commitment, the external finalist for this position will be required to complete a conduct questionnaire - specifically regarding findings of violation, on-going formal complaint investigations, or formal complaint investigations that did not conclude due to the external finalist's departure concerning: harassment or discrimination, retaliation, sexual misconduct, bullying or intimidating/abusive behavior, unprofessional relationship, or misconduct related to scholarship, research, teaching, service, or clinical/patient care. View the definitions of misconduct and processes Harvard will use.

Harvard will also make conduct inquiries to current and former employers of the external finalist regarding such misconduct. To facilitate these inquiries, Harvard requires all external applicants for this position to complete, sign, and upload the form entitled "Authorization to release information for external applicants" as part of their application. If an external applicant does not include the signed authorization with the application materials, the application will be considered incomplete, and, as with any incomplete application, will not receive further consideration.

We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, sex, gender identity, sexual orientation, religion, creed, national origin, ancestry, age, protected veteran status, disability, genetic information, military service, pregnancy and pregnancy-related conditions, or other protected status.

The health of our workforce is a priority for Harvard University. With that in mind, we strongly encourage all employees to be up-to-date on CDC-recommended vaccines.

### Harvard University Lecturer in Mathematics Faculty of Arts and Sciences Department of Mathematics

Position Description: The Department of Mathematics seeks applications for a Lecturer in Mathematics. The appointment is expected to begin on July 1, 2024. Lecturers work side by side with other faculty on teaching, developing, and supporting courses in the department. Depending on departmental need, these courses may include sections of entry-level calculus courses through multivariable calculus and linear algebra, a non-sectioned course taught independently, and possibly a graduate-level course. The teaching load will be two courses each semester.

The position is for one year. Basic Qualifications: Doctorate in mathematics is required by the time the appointment begins. The successful applicant should have experience teaching mathematics at the undergraduate level.

Additional Qualifications: Applicants must have a strong background in advanced mathematics and a sophisticated understanding of undergraduate teaching, learning, and curricular issues generally. Essential qualities include initiative, good judgment, and the ability to work well on a team. Please document your success in the classroom and your organizational skills.



Special Instructions: Please submit the materials listed below through mathjobs.org: https://www.mathjobs.org/jobs/list/22718.

Priority will be given to applications received before December 1, 2023.

- 1. Cover letter, including a description of teaching experience and philosophy and comments on any efforts to encourage diversity, inclusion, and belonging.
- 2. Curriculum Vitae
- 3. Names and contact information of 3-5 references (3 letters must be submitted to complete your application)
- 4. Teaching statement
- 5. Teaching portfolio (This might include a sample lesson, or assignment, or handout, and a link to a bit of videotaped teaching.)
- 6. Statement describing efforts to encourage diversity, inclusion, and belonging, including past, current, and anticipated future contributions in these areas.

The health of our workforce is a priority for Harvard University. With that in mind, we strongly encourage all employees to be up-to-date on CDC-recommended vaccines.

Harvard is an equal-opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, sex, gender identity, sexual orientation, religion, creed, national origin, ancestry, age, protected veteran status, disability, genetic information, military service, pregnancy and pregnancy-related conditions, or other protected status.

Contact Information Pam Brentana, Harvard University, Mathematics Department, 1 Oxford. St., Cambridge, MA 02138 Contact Email:mainoffice@math.harvard.edu

# Harvard University Benjamin Peirce Fellow in Mathematics Faculty of Arts and Sciences Department of Mathematics

Position Description: The Department of Mathematics at Harvard University welcomes application for a Benjamin Peirce Fellowship. The appointment is expected to begin on July 1, 2024. The position comes with a competitive starting salary for the nine-month academic year, which usually can be augmented by teaching at the Summer School or by working on a research contract, if funds are available. The teaching commitment is two courses per year, including a one-term course on a subject of the fellow's choice, if desired. The Benjamin Peirce Fellows are expected to take part in the usual task of advising students.

The appointment is for three years.

Basic Qualifications: Doctorate in mathematics is required by the time the appointment begins. Demonstrated strong commitment to teaching is desired.

Additional Qualifications: Applicants must have a strong background in advanced mathematics. Essential qualities include initiative, good judgment, and the ability to work well on a team.

Special Instructions: Please submit the materials listed below through mathjobs.org: https://www.mathjobs.org/jobs/list/22716

Priority will be given to applications received before November 22, 2023.

- 1. Cover letter
- 2. Curriculum Vitae
- 3. Names and contact information of 3-5 references (3 letters must be submitted to complete your application)

- 4. Research Statement
- 5. Teaching statement (describing teaching philosophy and practices)
- 6. Statement describing efforts to encourage diversity, inclusion, and belonging, including past, current, and anticipated future contributions in these areas.

The health of our workforce is a priority for Harvard University. With that in mind, we strongly encourage all employees to be up-to-date on CDC-recommended vaccines.

Harvard University is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, sex, gender identity, sexual orientation, religion, creed, national origin, ancestry, age, protected veteran status, disability, genetic information, military service, pregnancy and pregnancy- related conditions, or other protected status.

Contact Information Pam Brentana, Harvard University, Mathematics Department, 1 Oxford. St., Cambridge, MA 02138 Contact Email: mainoffice@math.harvard.edu

### Harvard University Preceptor in Mathematics (Teaching Focused Position) Faculty of Arts and Sciences Department of Mathematics

The Department of Mathematics seeks applications for a Preceptor in Mathematics.

The Preceptor position is designed for early career mathematicians who are looking for teaching and administrative experience to launch into a career that focuses on the practice of teaching mathematics and student success. The position provides an opportunity for professional development in mathematics pedagogy and education leadership.

Math Preceptors work to promote an environment of diversity, inclusivity, and a sense of belonging in our introductory courses. They contribute to the department's education mission of cultivating an enriching mathematical experience that instills a sense of community and intellectual belonging for all students. The multifaceted responsibilities include:

- Collaboratively teaching two courses each semester as part of a closely-coordinated team
- Mentoring graduate students to become successful instructors
- Undertaking substantial administrative tasks aimed at promoting our educational mission

The curriculum for introductory courses spans from precalculus to multivariable calculus and linear algebra and focuses on developing a conceptual understanding, framing mathematics as a sense making activity, and using mathematics to better understand the world.

The appointment is expected to begin on July 1, 2024. The position is for an initial appointment of three years and may exceptionally be renewed for a second and final three years, contingent on performance, curricular need, position availability, and divisional dean approval.

Basic Qualifications: The successful applicant should have an advanced degree in mathematics, mathematics education, or a related field.

Essential qualities include initiative, good pedagogical and mathematical judgment, and the ability to work well on a team.

Additional Qualifications: We seek applicants who bring a sophisticated understanding of teaching and learning. We are particularly drawn to candidates who can:

- Effectively incorporate active learning techniques into their practice
- Make significant contributions to the Diversity, Inclusion, Equity, and Belonging (DIEB) initiatives within the mathematics community



- Exhibit proficiency in managing administrative tasks
- Pursue professional development opportunities and embody a growth mindset regarding their pedagogical practice.
- Demonstrate expertise in the mentorship and professional development of fellow educators (graduate students and undergraduates)

Special Instructions: Please submit the following materials through mathjobs.org: https://www.mathjobs.org/jobs/list/22717

All applications received by December 1, 2023 will receive full consideration.

Please submit the following materials through mathjobs.org:

- 1. Cover letter, including a description of teaching experience and philosophy and comments on any efforts to encourage diversity, inclusion, and belonging.
- 2. Curriculum Vitae
- 3. Names and contact information of 3-5 references (3 letters must be submitted to complete your application)
- 4. Teaching statement
- 5. A sample lesson plan preferably on a calculus topic that highlights how you teach for conceptual understanding, along with a description of the goals for each portion of the lesson and notes on how the lesson could be implemented by another instructor.
- 6. Teaching portfolio, which should include:
  - (a) A teaching video if you have one available.
  - (b) Evidence of teaching success
- 7. Statement describing efforts to encourage diversity, inclusion, and belonging, including past, current, and anticipated future contributions in these areas. Specifically we are interested in how you incorporate this into your classroom practice and classroom design. Harvard's Math Department is dedicated to fostering diversity within its faculty and strives to cultivate an inclusive and culturally diverse intellectual community. We actively encourage applications from individuals belonging to underrepresented groups, including women and minorities.

Harvard University is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, sex, gender identity, sexual orientation, religion, creed, national origin, ancestry, age, protected veteran status, disability, genetic information, military service, pregnancy and pregnancy-related conditions, or other protected status.

The health of our workforce is a priority for Harvard University. With that in mind, we strongly encourage all employees to be up to date on CDC-recommended vaccines.

Contact Information Pam Brentana, Harvard University, Mathematics Department, 1 Oxford. St., Cambridge, MA 02138 Contact Email: mainoffice@math.harvard.edu

### Krieger School of Arts and Sciences, mathematics at Johns Hopkins

As part of a strategic investment towards a transformative expansion of the faculty of the Krieger School of Arts and Sciences, mathematics at Johns Hopkins is poised for significant growth in the coming years.

To this end, the Department of Mathematics at Johns Hopkins University invites applications for tenure-track or tenured faculty positions beginning July 1, 2024. Candidates in all areas of pure mathematics are encouraged to apply. Applications may be submitted through mathjobs.org. Consideration of applications will begin on November 1, 2023, and will continue until the position or positions are filled.

Johns Hopkins University is committed to active recruitment of a diverse faculty and student body. We are committed to conducting a broad and inclusive search for candidates who will contribute to the diversity and excellence of the JHU community. Consistent with the University's goals of achieving excellence in all areas, we will assess the comprehensive qualifications of each applicant.

### Assistant Professor of Mathematics Education CSU, Long Beach, Department of Mathematics & Statistics

The Department of Mathematics and Statistics at California State University, Long Beach (CSULB), warmly invites applicants for Assistant Professor Of Mathematics Education.

Review of applications begins on October 17, 2023, and will continue until the position is filled. Required & preferred qualifications, job duties, application procedures, information about the department, and other details can be found on Jobs@TheBeach.

CSULB is an Equal Opportunity Employer.

### Assistant Professor of Mathematics, Amherst College

The Amherst College Department of Mathematics and Statistics invites applications for a full-time tenure-track position in mathematics at the rank of assistant professor that will begin on July 1, 2024. All research areas of mathematics will be considered.

Responsibilities for the position include teaching two courses per semester, maintaining an active research program, supervising undergraduate theses, and supporting the mathematics program at the college. The successful candidate will also be expected to contribute to the department's efforts to foster diversity, equity, and inclusion, and to participate in the department's governance and intellectual community.

Applicants must hold a Ph.D. in mathematics or a related field, or complete all requirements for that degree before the start of the appointment. They must demonstrate a strong commitment to research, and be passionate about teaching mathematics at all levels to undergraduates of diverse backgrounds.

#### About Amherst:

Amherst College is proud of its efforts to achieve and sustain diversity of all kinds within our community. For example, currently, 22 percent of Amherst's students are Pell Grant recipients, nearly half identify as domestic students of color, and 11 percent are international students, with non-U.S. citizenship. It is anticipated that Amherst College's class of 2027 will comprise 19 percent first-generation college students, its highest proportion in modern times. Our expectation is that the successful candidate will excel at teaching and mentoring students who are broadly diverse with regard to race, ethnicity, socioeconomic status, gender, nationality, sexual identity, disability, and religion. The department and college are also committed to increasing the diversity of our faculty and to helping all members of our community thrive. We strongly encourage potential candidates from underrepresented and/or historically excluded groups to apply.

The college has a generous sabbatical policy for tenure-track and tenured faculty and provides annual funding to support conference travel and research. There is also significant support for course innovation and development through the Center for Teaching and Learning.



• To apply, submit the following at https://www.mathjobs.org/jobs/list/22676 AMS Cover Sheet; Curriculum vitae; Research statement; Teaching Statement; At least three letters of recommendation, including at least one specifically addressing teaching experience.

Applications should include evidence of teaching effectiveness, and of commitment to diversity, equity, and inclusion.

Applications will be read as they are received, and all complete applications received by November 5, 2023, will be guaranteed full consideration.



### Online Undergraduate Resource Fair for the Alliance and Advancement of Marginalized Mathematicians

November 18-19, 2023





The Online Undergraduate Resource Fair for the Alliance and Advancement of Marginalized Mathematicians will take place on **November 18-19th, 2023**.

For marginalized, minoritized, underrepresented, and underserved undergraduate mathematicians, it can feel difficult to gather the information you need to build your career. We've been there, and we've got your back.

This free, virtual conference will include:

- · A panel of representatives of summer and semester opportunities
- A panel of students who have participated in such programs
- Crash courses in common undergraduate math research fields
- Personal stories of mathematicians' formative experiences
- · Other talks and activities to network and share resources

Registration and speaker nominations are available on ourfa2m2.org.

The Department of Mathematics and Statistics at California State University, Long Beach The Department of Mathematics and Statistics at California State University, Long Beach, warmly invites applicants for a tenure track position at the rank of Assistant Professor in Mathematics Education beginning August 19, 2024 (Fall Semester). Salary will be commensurate with qualifications and experience.

### REQUIRED QUALIFICATIONS:

- Ph.D. or Ed.D. in mathematics education; statistics education; or related field (e.g., mathematics, applied mathematics, statistics) with background in education research at time of application or official notification of completion of the doctoral degree by August 1, 2024
- Demonstrated potential for effectiveness and excellence in teaching in higher education that reflects an understanding of the impacts of race, ethnicity, and other identities on the lives and experiences of students
- Demonstrated potential for published scholarship in mathematics education
- Demonstrated commitment to working successfully with a diverse student population

Additional details of the position, including Preferred Qualifications, Duties, and information about the Department, can be found at https://careers.pageuppeople.com/873/lb/en-us/job/531271/assistant-professor-of-math-education

APPLICATION DEADLINE: Review of applications to begin October 17, 2023

Position opened until filled (or recruitment canceled)

CSULB is a large public institution (39,300 students) and is designated as both a Hispanic-Serving and Minority-Serving Institution. As a campus that serves a very diverse body of students, the Department of Mathematics and Statistics welcomes applications from tenure-line candidates who, through previous experience supporting diverse students or their own lived experience with marginalized identities, will be committed to the successful teaching and mentoring of all students.

CSULB seeks to recruit faculty who enthusiastically support the University's strong commitment to the academic success of all of our students, including students of color, students with disabilities, students who are first generation to college, veterans, students with diverse socio-economic backgrounds, and students of diverse sexual orientations and gender expressions. CSULB seeks to recruit and retain a diverse workforce as a reflection of our commitment to serve the People of California, to maintain the excellence of the University, and to offer our students a rich variety of expertise, perspectives, and ways of knowing and learning.

CSULB is committed to creating a community in which a diverse population can learn, live, and work in an atmosphere of tolerance, civility and respect for the rights and sensibilities of each individual, without regard to race or ethnicity (including color or ancestry), nationality, religion or religious creed, gender (or sex), gender identity (including transgender), gender expression, sexual orientation, marital status, disability (physical or mental), medical condition, genetic information, age, veteran or military status. CSULB is an Equal Opportunity Employer.

### The Department of Mathematics, Statistics, and Computer Science (MSCS) at Macalester College

The Department of Mathematics, Statistics, and Computer Science (MSCS) at Macalester College invites applications for a tenure-track Assistant Professor in Mathematics to begin Fall 2024. Candidates must have or be completing a Ph.D. in Mathematics, Applied Mathematics, or a closely related field. They must have a strong commitment to and vision for excellence in teaching, mentorship, and research in an undergraduate liberal arts environment. We are especially interested in candidates who can contribute to our applied mathematics curriculum, in introductory as well as advanced courses.

Macalester's joint department offers an attractive platform for mathematical scientists. Our unified structure facilitates cross-disciplinary cooperation. We are proud of our inclusive and active teaching, our focus on applications and computation throughout the curriculum (including in our innovative calculus sequence), our close relationships with other partner disciplines, and our vibrant record of conducting research with undergraduates.

As an Equal Opportunity employer supportive of affirmative efforts to achieve diversity among its faculty, Macalester College strongly encourages applications from women and members of historically marginalized groups. See https://www.macalester.edu/mscs/math-positions-2023-2024/ for application details. Full consideration will be given to complete applications received by **October 6, 2023**.

### University of California, Riverside Department of Mathematics

Department of Mathematics at the University of California, Riverside invites applications for an Assistant Professor of Teaching. The appointment will begin on July 1, 2024. The position parallels the tenured faculty series, with a focus on teaching, professional and/or scholarly achievement and activity, and service.

UCR is a world-class research university and a minority serving institution with an exceptionally diverse undergraduate student body. Its mission is explicitly linked to providing routes to educational success for underrepresented and first-generation college students. A commitment to this mission is a preferred qualification.

A Ph.D. in Mathematics, demonstrated excellence in teaching, and professional and/or scholarly achievement and activity, and service beyond the dissertation is required. Preferred qualifications include contributions to promote diversity. People from underrepresented groups are particularly encouraged to apply.

Duties will include, teaching 6 quarter courses per year, curricular development, and other enrichment programs for our service mathematics courses and the mathematics majors. Professional and/or scholarly activities



may be related to mathematics itself or to mathematical pedagogy. Certain administrative work (e.g., coordination of undergraduate research, large introductory courses, and/or mentoring and advising of students particularly from underrepresented and underserved populations) and community outreach work are also relevant. Advancement through the faculty ranks at the University of California is through a series of structured, merit- based evaluations, occurring every 2-3 years, each of which includes substantial peer input.

To apply: go to https://apptrkr.com/4551201 and submit

- Cover Letter
- Curriculum Vitae
- Statement of Teaching and copies of teaching evaluations and /or other evidence of excellence in teaching.
- Statement of Professional and/or Scholarly Achievement and Activity (See APM 2103: https://ucop.edu/academic-personnel-programs/files/apm/apm-210.pdf)
- Statement of Past and/or Planned Future Contributions to Advancing Diversity and Inclusive Excellence
- Letters of Reference Applicants should provide 4 letters on teaching and professional and/or scholarly achievement and activity.

Evaluation of applications will begin on November 1, 2023, and will continue until the position is filled. For full consideration, applicants should submit their complete applications before the above date.

For more information about the position, please contact Dr. Estela Gavosto, Estela.Gavosto@ucr.edu. For inquiries regarding the application process, please contact Ashley Lawson, ashley.lawson@ucr.edu.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified candidates will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, protected veteran status, or any other characteristic protected by law. As a University employee, you will be required to comply with all applicable University policies and/or collective bargaining agreements, as may be amended from time to time. Federal, state, or local government directives may impose additional requirements.

Salary Range: 74,600-97,200

### University of California, Riverside Department of Mathematics

The Department of Mathematics at the University of California, Riverside invites applications for an Assistant Professor position in Applied and Computational Mathematics, beginning on July 1, 2024. The desired specialties include the modeling of fluids, optimization, machine learning, multi-scale mathematical modeling, computational scientific problem solving, and computational methods for nonlinear partial differential equations.

Responsibilities of the position include research, graduate and undergraduate teaching and departmental, university, and professional service. Established criteria of the University of California will determine the salary and the level of appointment.

A Ph.D. in Mathematics or Applied Mathematics and demonstrated excellence in research and teaching are required. The successful candidate will have made major contributions beyond the doctoral dissertation.

Preferred qualifications include contributions to promote diversity.

People from underrepresented groups are particularly encouraged to apply.

To apply: go to https://apptrkr.com/4551302 and submit

- Cover Letter
- Curriculum Vitae, including a list of publications
- Statement of Research
- Statement of Teaching, and (optionally) copies of teaching evaluations.

- Statement of Past and/or Planned Future Contributions to Advancing Diversity and Inclusive Excellence
- Letters of Reference Applicants should provide 3 letters on research and one additional letter of recommendation on teaching.

Evaluation of applications will begin on November 1, 2023 and will continue until the position is filled. For full consideration, applicants should submit their complete applications before the above date.

For more information about the position, please contact Dr. Mark Alber, Department of Mathematics: malber@ucr.edu. For inquiries regarding the application process, please contact Ashley Lawson, ashley.lawson@ucr.edu.

Advancement through the faculty ranks at the University of California is through a series of structured, merit-based evaluations, occurring every 2-3 years, each of which includes substantial peer input.

UCR is a world-class research university with an exceptionally diverse undergraduate student body. Its mission is explicitly linked to providing routes to educational success for underrepresented and first-generation college students. A commitment to this mission is a preferred qualification.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified candidates will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, protected veteran status, or any other characteristic protected by law.

As a University employee, you will be required to comply with all applicable University policies and/or collective bargaining agreements, as may be amended from time to time. Federal, state, or local government directives may impose additional requirements.

Salary Range: 74,600-97,200

### University of California, Riverside Department of Mathematics

The Department of Mathematics at the University of California, Riverside invites applications for an Assistant Professor position in Topology. Truly exceptional applicants from other areas of pure mathematics are also encouraged to apply. The appointment will begin on July 1, 2024. This academic-year position is intended for the level of tenure-track Assistant Professor.

Responsibilities of the position include research, graduate and undergraduate teaching and departmental, university, and professional service. Established criteria of the University of California will determine the salary and the level of appointment.

A Ph.D. in Mathematics and demonstrated excellence in research and teaching is required.

The successful candidate will have made major research contributions beyond the doctoral dissertation.

Preferred qualifications include contributions to promote diversity.

People from underrepresented groups are particularly encouraged to apply.

To apply: go to https://apptrkr.com/4551318 and submit

- Cover Letter
- Curriculum Vitae, including a list of publications
- Statement of Research
- Statement of Teaching, and (optionally) copies of teaching evaluations.
- Statement of Past and/or Planned Future Contributions to Advancing Diversity and Inclusive Excellence
- Letters of Reference Applicants should provide 3 letters on research and one additional letter of recommendation on teaching.

Evaluation of applications will begin on November 1, 2023 and will continue until the position is filled. For full consideration, applicants should submit their complete applications before the above date.



For more information about the position, please contact Dr. Peter Samuelson, psamuels@ucr.edu. For inquiries regarding the application process, please contact Ashley Lawson, ashley.lawson@ucr.edu.

Advancement through the faculty ranks at the University of California is through a series of structured, merit-based evaluations, occurring every 2-3 years, each of which includes substantial peer input.

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As a University employee, you will be required to comply with all applicable University policies and/or collective bargaining agreements, as may be amended from time to time. Federal, state, or local government directives may impose additional requirements.

Salary Range: 74,600-97,200

### Pepperdine University

Tenure-track position at Pepperdine University, beginning Fall 2024. We are a Christian university, and seek to hire candidates who can advance our Christian mission through teaching and mentoring undergraduates, research, and service. We are broadly committed to belonging, equity, and inclusion. It is part of our institutional mission to teach and engage a diverse community of students. We especially welcome applications from candidates who are committed to advancing these ideals.

Submit applications to: apply.interfolio.com/127580. See website for instructions. Pay special attention to the response to the Christian mission. Application review will begin on November 1, 2023 and will continue until the position is filled. Questions: Prof. Kevin Iga, Kevin.Iga@pepperdine.edu.



The Fellow brings his/her/their technical background and external perspective to the decision-making process in Congress. Prospective Fellows must be cognizant of and demonstrate sensitivity toward political and social issues and have a strong interest in applying personal knowledge toward solutions to societal problems.

#### Eligibility:

- Applications are invited from individuals in the mathematical sciences.
- Applicants must have a PhD or an equivalent doctoral-level degree by the application deadline (February 1, 2024).
   Applicants must be US citizens.
- Applicants must be US citizens.
   Federal employees are not eligible

Stipend amount: The stipend for the fellowship period (September 1, 2024—August 31, 2025) will be \$100,479, with additional allowances for relocation and professional travel, as well as a contribution toward health insurance.

Applicants must submit a statement expressing interest and qualifications for the AMS Congressional Fellowship, as well as a curriculum vitae. Candidates must have three letters of recommendation sent to the AMS by the February 1, 2024 feading.

Apply for the AMS Congressional Fellowship at www.ams.org/ams-congressional-fellowship.

DEADLINE FOR APPLICATIONS IS 11:59 p.m. EST ON FEBRUARY 1, 2024.



### SLMath (MSRI) 2024 Summer Research

### 2024 SUMMER RESEARCH IN MATHEMATICS PROGRAM

SLMath, formerly MSRI, invites applications for the 2024 Summer Research in Mathematics (SRiM) program. This program provides space, funding, and the opportunity for in-person collaboration to small groups of mathematicians with partial results on an established project, 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. View website for full details of program and funding. Priority deadline: October 8, 2023. Applications are accepted on a rolling basis afterwards until capacity is reached.

### slmath.org/summer-research

### PROGRAM ELIGIBILITY

- Groups of two to six mathematicians with partial results on an established project
- Each group member must have a PhD or advanced graduate standing in the mathematical or statistical sciences. At least one team member must be US based.
- Visits to SLMath must take place between
  June 10 July 12, 2024. Each group must be
  in residence at SLMath for a minimum of two
  weeks. All members of the group must be in
  residence for the full duration of the visit.

### 2024 AFRICAN DIASPORA JOINT MATHEMATICS WORKSHOP

June 24 - July 5, 2024 in Berkeley, CA

SLMath, formerly MSRI, invites applications for the 2024 African Diaspora Joint Mathematics Workshop (ADJOINT) taking place in Berkeley, California. ADJOINT is designed to provide opportunities for in-person collaboration to U.S. mathematical and statistical scientists, especially those from the African Diaspora, who will work in small groups with distinguished African-American research leaders on topics at the forefront of mathematical and statistical research.

Full details of eligibility, applications, deadlines, funding and support, and 2024 research leaders and topics will be posted in September 2023. Applications are expected to open in mid-September 2023. The 2024 On-Site Director will be Dr. Edray Goins (Pomona College).

### slmath.org/adjoint

#### PROGRAM ELIGIBILITY

Applicants must be a U.S. citizen or permanent resident, possess a PhD in the mathematical sciences or statistics, and be employed at a U.S. institution.

Questions? Contact coord@slmath.org.





SLMath strives to include a diverse community of mathematicians in its programs. Women, gender-expansive individuals, minorities, and recent PhDs are encouraged to apply. SLMath has been supported since its origins by the National Science Foundation, joined by the National Security Agency, over 100 Academic Sponsor departments, a range of private foundations, and generous and farsighted individuals.





### 2024-25 RESEARCH PROGRAMS

The Simons Laufer Mathematical Sciences Institute (SLMath, formerly known as MSRI) invites applications for membership in its 2024–25 scientific research programs in Berkeley, CA.

#### **FALL 2024**

- New Frontiers in Curvature: Flows, General Relativity, Minimal Submanifolds, and Symmetry
- Special Geometric Structures and Analysis

### **SPRING 2025**

- Extremal Combinatorics
- Probability and Statistics of Discrete Structures

### Apply: mathjobs.org/jobs/SLMath

**Apply online beginning August 15, 2023** (Postdoc applications open in September)

- Research Professorships: Apply by Oct. 1
- Research Memberships: Apply by Nov. 15
- Postdoctoral Fellowships: Apply by Nov. 15

For details of funding and support, visit website.

### slmath.org/apply

# SLMath (MSRI) Call for Applications

### **SPRING 2024 WORKSHOPS**

SLMath (formerly MSRI) invites registration for the Institute's Spring 2024 workshops. All workshops are free of charge; funding for travel and childcare support is available as well as a nursing room for parents on site. See website for full details of funding opportunities and support, workshop organizers, speakers, and schedules.

#### COMMUTATIVE ALGEBRA

- Connections Workshop: January 18–19, 2024
- Introductory Workshop: January 22-26, 2024
- Recent Developments in Commutative Algebra: April 15–19, 2024

#### NONCOMMUTATIVE ALGEBRAIC GEOMETRY

- Connections Workshop: February 1-2, 2024
- Introductory Workshop: February 5-9, 2024
- Recent Developments in Noncommutative Algebraic Geometry: April 8–12, 2024

#### **OTHER WORKSHOPS**

- Hot Topics: Artin Groups and Arrangements Topology, Geometry, and Combinatorics: March 11–15, 2024
- Advances in Lie Theory, Representation Theory and Combinatorics: Inspired by the work of Georgia M. Benkart: May 1-3, 2024

### slmath.org/workshops





SLMath strives to include a diverse community of mathematicians in its programs. Women, gender-expansive individuals, minorities, and recent PhDs are encouraged to apply. SLMath has been supported since its origins by the National Science Foundation, joined by the National Security Agency, over 100 Academic Sponsor departments, a range of private foundations, and generous and farsighted individuals.

### Kenyon College

Kenyon College, a highly selective, nationally ranked liberal arts college in central Ohio, invites applications for a tenure-track position at the assistant professor level in the Department of Mathematics and Statistics beginning in July 2024. A Ph.D. in statistics is required, as well as prior teaching experience, preferably at a U.S. college or university or an equivalent institution. Scholars in all areas of statistics are encouraged to apply. The successful applicant will expand and enhance the statistics course offerings of the department. Our department has a strong commitment to student-centered learning; thus, we are particularly interested in candidates with experience in active learning pedagogies. Ability and willingness to include undergraduates in research is also desirable. To apply, candidates should visit the online application site found at http://careers.kenyon.edu. A complete application will be composed of 1) a cover letter explaining why the Kenyon College Department of Mathematics and Statistics is a good fit for the applicant.; 2) a statement reflecting on the applicant's teaching and learning experiences, including experiences with and plans for teaching a diverse student population with inclusive pedagogy: 3) a statement describing the applicant's research accomplishments and future research directions; 4) Curriculum Vitae; 5) an unofficial transcript; and 6) three (3) letters of recommendation. All application materials must be submitted electronically through Kenyon's employment website. All other materials must be submitted electronically via www.mathjobs.org. Review of applications will begin October 3, 2023, and will continue until the position is filled. Completed applications received by the October 3 deadline will be guaranteed full consideration.

Kenyon College, a highly selective, nationally ranked liberal arts college in central Ohio, invites applications for a tenure-track position at the assistant professor level in the Department of Mathematics and Statistics beginning in July 2024. A Ph.D. in applied mathematics or a Ph.D. in mathematics with an applied specialty is required, as well as prior teaching experience, preferably at a U.S. college or university or an equivalent institution. Kenyon faculty members are excellent teachers who maintain strong research programs. The successful applicant will expand and enhance the applied mathematics offerings of the department. Our department has a strong commitment to student-centered learning; thus, we are particularly interested in candidates with experience in active learning pedagogies. Ability and willingness to include undergraduates in research is also desirable. To apply, candidates should visit the online application site found at http://careers.kenyon.edu. A complete application will be composed of 1) a cover letter explaining why the Kenyon College Department of Mathematics and Statistics is a good fit for the applicant; 2) a statement reflecting on the applicant's teaching and learning experiences, including experiences with and plans for teaching a diverse student population with inclusive pedagogy; 3) a statement describing the applicant's research accomplishments and future research directions; 4) a Curriculum Vitae; 5) an unofficial transcript; and 6) three (3) letters of recommendation. All application materials must be submitted electronically through Kenyon's employment website. All other materials must be submitted electronically via www.mathjobs.org. Review of applications will begin October 3, 2023, and will continue until the position is filled. Completed applications received by the October 3 deadline will be guaranteed full consideration.



### Baylor University POSTDOCTORAL FELLOW, MATHEMATICS

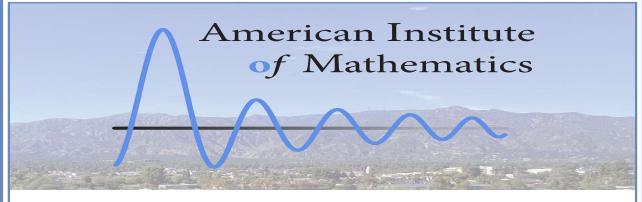
Baylor University seeks a postdoctoral fellow in Mathematics to start in August 2024. Details for this position can be found at https://www.mathjobs.org/jobs/list/22670. Applications must be completed and received by November 26, 2023.

This position is on a renewable twelve-month contract potentially leading to a maximum appointment of three years. Special consideration will be given to applicants with interests aligned with areas of research in the department that include algebra, analysis, applied/computational mathematics, differential equations, mathematical physics, numerical analysis, representation theory, and topology, with potential interdisciplinary applications.

Located in Waco, Texas, Baylor University is the oldest college in Texas. With a population of around 21,000 students, Baylor is one of the top universities in the nation, having just been named an R1 institution by the Carnegie Classification in 2022. Baylor is also on the honor roll of the "Great Colleges to Work For" from The Chronicle of Higher Education, Baylor offers competitive salaries and benefits while giving faculty and staff the chance to live in one of the fastest-growing parts of the state. Our strategic plan, Illuminate Forward, guides the University as we continue to live up to Baylor's mission of educating men and women for worldwide leadership and service by integrating academic excellence and Christian commitment within a caring community.

Baylor University is a private not-for-profit university affiliated with the Baptist General Convention of Texas. As an Affirmative Action/Equal Opportunity employer, Baylor is committed to compliance with all applicable anti-discrimination laws, including those regarding age, race, color, sex, national origin, pregnancy status, military service, genetic information, and disability. As a religious educational institution, Baylor is lawfully permitted to consider an applicant's religion as a selection criterion. Baylor encourages women, minorities, veterans, and individuals with disabilities to apply.





The American Institute of Mathematics (AIM), at its new home on the campus of Caltech in Pasadena, California, sponsors activities in all areas of the mathematical sciences with an emphasis on focused collaborative research.

### **Call for Proposals**

### **Workshop Program**

AIM invites proposals for its focused workshop program, both in-person and online. AIM workshops are characterized by their specific mathematical goals. This may involve making progress on a significant unsolved problem or examining the convergence of two distinct areas of mathematics. Workshops are small in size, up to 28 people, to allow for close collaboration among the participants.

### **SQuaREs Program**

AIM also invites proposals for the SQuaREs program. This program brings together groups of four to six researchers for a week of focused work on a specific research problem with the opportunity to return for additional meetings in consecutive years.

### **Research Communities Program**

AIM is excited to invite proposals for its new Research Communities program. Intended for larger collaborative efforts of 40+ researchers in a virtual setting, these communities receive access to a dedicated online platform with integrated tools to support long-term research collaboration.

More details are available at:

http://www.aimath.org/research/

deadline: November 1

AIM seeks to promote diversity in the mathematics research community. We encourage proposals which include significant participation of women, underrepresented minorities, junior scientists, and researchers from primarily undergraduate institutions.



### Department of Mathematics and Statistics in the College of Arts and Sciences at American University

The Department of Mathematics and Statistics in the College of Arts and Sciences at American University in Washington, DC invites applications for a full-time, tenure-track position for a Data Scientist at the rank of Assistant Professor beginning August 1, 2024. Applicants must have a PhD in Data Science, Statistics, or Applied Mathematics, or a closely related discipline by August 1, 2024. Candidates will be required to demonstrate a clear record of academic or professional experience and expertise in statistical/mathematical theory with the application of data science methods and tools. Candidates will be required to demonstrate alignment of their teaching and research to the Department's mission and research programs. Preferred areas of expertise and experience include machine learning; natural language processing; deep learning; trustworthy, explainable, transparent algorithms; and ethics in data science. Review of applications will begin on October 1, 2023, and continue until the search is concluded. Applications will only be accepted via: http://apply.interfolio.com/128173 See link for position and application requirements. Salary and benefits are competitive. For more information about American University, visit www.american.edu. The department offers both undergraduate and master's degree programs. Learn more about the College of Arts and Sciences at www.american.edu/cas/ and about the department at www.american.edu/cas/mathstat/.

### The University of Alabama

The Department of Mathematics at The University of Alabama invites applications for one tenure-track position at the Assistant Professor level starting August 16, 2024. The department is seeking applicants in the areas of optimization and machine learning. Research of ideal candidates should have applications in a field of optimization or data sciences, which may involve but is not limited to numerical optimization and deep learning. Candidates must possess a doctoral degree in mathematics or a very closely related field by August 16, 2024.

The application is available through https://careers.ua.edu/jobs/search/AS. The applications include: letter of application, CV, research statement, teaching statement, and three letters of recommendation (one of which concerns teaching). The recommendation letters should be submitted electronically through MathJobs (www.mathjobs.org). Applications will be reviewed on an ongoing basis starting November 1, 2023, and will continue to be accepted until the position is filled.

The University of Alabama is an Equal Employment/Equal Educational Opportunity Institution and actively seeks diversity among its employees. We especially seek applications from candidates who have followed a non-traditional educational path, who would bring a diversity of background, experience, and viewpoint to the department, and who have demonstrated an ability to teach, mentor, and recruit diverse groups.

### Department of Mathematics and Computer Science, Santa Clara University

The Department of Mathematics and Computer Science at Santa Clara University, a Jesuit, Catholic University, is offering a tenure-track position at the rank of Assistant Professor in any area of Applied Mathematics with a strong computational component. Tenure stream faculty are expected to balance a commitment to excellent undergraduate teaching with an active, sustainable research and publication program, as well as provide effective service to the Department, College, and University. Candidates should be prepared to teach six courses per academic year during three quarters. The position begins September 1, 2024, by which time a Ph.D. is required.

The closing date for applications is November 30, 2023. Santa Clara University, located in California's Silicon Valley, is an AA/EEO employer. For more information, see www.scu.edu/hr/careers/faculty.cfm.

### Macalester College

Macalester College invites applications for a tenure-track Assistant Professor in Applied Mathematics beginning Fall 2024. Candidates must have or be completing a Ph.D. in (Applied) Mathematics or a closely related field. They must have a strong commitment to excellence in teaching, mentorship, and research in an undergraduate liberal arts environment. As an Equal Opportunity employer supportive of affirmative efforts to achieve diversity among its faculty, Macalester College strongly encourages applications from women and members of historically marginalized groups. See https://www.macalester.edu/mscs/math-positions-2023-2024/. Full consideration will be given to complete applications received by October 6, 2023.

### Colby College – Assistant Professor in Mathematics (Tenure Track)

We have a tenure-track Assistant Professor position beginning September 1, 2024. The Department of Mathematics seeks an exceptional teacher with an established and active research program in one or more of the following:

- Mathematics of random processes: Mathematical Statistical Mechanics, Stochastic Calculus, and/or Stochastic Differential Equations
- Mathematics of quantum systems and theories: Mathematics of Quantum Information and Computation, Mathematics of Quantum Field Theory, and/or Quantum Algebra.

More details, further criteria, and instructions for submitting applications can be found at: https://www.colby.edu/academics/departments-and-programs/mathematics/faculty-searches/

Colby is a private, coeducational liberal arts college that admits students and makes personnel decisions on the basis of the individual's qualifications to contribute to Colby's educational objectives and institutional needs. The principle of not discriminating on the basis of race, color, age, sex, sexual orientation, gender identity or expression, religion, caste, national or ethnic origin, marital status, genetic information, political beliefs, veteran or military status, parental status, pregnancy, childbirth or related medical conditions, physical or mental disability unrelated to the job or course of study requirements is consistent with the mission of a liberal arts college and the law.

### The University of La Verne

The University of La Verne has a job opening for an Assistant Professor of Mathematics. Please see <a href="https://laverne.peopleadmin.com/postings/12459https://laverne.peopleadmin.peopleadmin.com/postings/12459https://laverne.peopleadmin.com/postings



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