



Upcoming Events

IMA- Alliance Summer Workshop

Minneapolis, MN
June 3-5, 2020

MSRI Summer ADJOINT Workshop

Berkeley, CA
June 15-26, 2020

2020 Field of Dreams Conference

Minneapolis, MN
Nov. 6-8, 2020

Thoughts from the Director...



David Goldberg
Executive Director
of the Math Alliance

You may have noticed the usual end of the month newsletter did not go out in March. While we had already planned early in the month not to have a March newsletter for other reasons, we also know there is nothing usual about our current circumstances. I want to use April's newsletter to update our community on our activities and programs as we all adapt to the ongoing COVID-19 pandemic.

- Our most important program, **F-GAP**, has always been conducted almost completely by remote methods – e-mail, phone, and videoconferencing. So, we have not had to make many changes in F-GAP, and it will continue to operate throughout the spring and summer as it usually does. **Please continue to nominate your students who meet the [criteria](#) for**

F-GAP! We have already received 78 nominations, and have assigned 21 students to Faculty Facilitators (and we have over 160 such Facilitators who have volunteered!!). **If you nominated student for F-GAP make sure they complete their application soon!!**

- We also continue to grow our mentoring community, as more mentors continue to sign up (1,044 as of this writing!!). Again, this is an online activity so while it might slow a little due to people understandably concentrating on other things, we will continue to be able to accept more mentors.
- You may recall we are planning a second annual workshop for F-GAP students at the Institute for Mathematics and its Applications (IMA) at the University of Minnesota for this coming June. We have discussed with our friends at IMA how we can conduct the activities planned for the June workshop for F-GAP students and their mentors. While we may not be able to meet in person, or may have to delay the physical meeting, we are going to find a way to provide our F-GAP students with as much of the planned experience as possible.
- You might also know that IMA is also our host for this year's Field of Dreams Conference in November. We're discussing with IMA what we might anticipate, and what we will do depending on how things progress. For now, we are planning for the conference to go ahead as planned, and we will update you when we have more information.
- Regional alliances will be impacted as well, and we are working to collaborate with our regions to be sure we do what we can to help each other through this difficult time.

Overall, we expect to have the same effect on the group of students entering graduate programs in 2021 as we have had in the past, and we will continue to think of ways to ensure our work continues to have its maximum impact.

As a nation and throughout the world, we are facing a once in a century challenge. I want to encourage us all to spend our time and energy doing what we can to improve the outcomes for our communities, and our country. Unfortunately, we are [seeing](#) that this pandemic is [disproportionately affecting our minority communities](#). This emphasizes the importance of the work of the Math Alliance in trying to alleviate underrepresentation within the STEM disciplines. We also see the heavy toll the virus is taking on our health care workers, who are braving significant challenges at great personal risk to try and keep all of us safe. I know this pandemic will impact many in our community personally, and I am sure we will be hearing many of these stories soon. I hope our community can find a way to be a source of good in this difficult time.

We see how our profession is playing a fundamental role by providing the modelling tools needed to project needs. Several of our biostatistics GPGs are actively engaged in aspects of the response. [NYU Global Public Health is offering free consulting services](#), while [Harvard Biostatistics](#), [Duke Biostatistics and Bioinformatics](#) and [Drexel Biostatistics and Epidemiology](#) have all hosted important webinars, or released important information for researchers. I am sure there is much more activity than this within our community around the science and data being explored. (Please be sure to share those with us at mathalliance@purdue.edu, so we can share them with the rest of our community.) For several years we have been emphasizing the importance of data and data science for the future of our profession, and it is hard to imagine a stronger case can be made than the one that is playing out in our society and in the media every day. I am sure many Math Alliance Scholars will be inspired by these events to pursue studies and careers in Biostatistics, Mathematical Biology, Operations Research, Data Science, and many other fields which will play an important role in using the lessons of this experience to prepare us for future challenges. We need to continue to do what we have always done; encourage them to consider these paths when we see they have the talent, support them, nurture their dreams, and guide them to find the best place for them to achieve their potential. Even in the face of this daunting challenge, we will continue making our profession a better, more accessible one for the good of everyone.

Some Covid-19 Resources

- [AMS Resources & Updates related to COVID-19](#)
- [Free AMS Mathematical Modeling Books and Journals available during COVID-19 pandemic](#)

From ASA Blogs

- [SAS COVID-19 Free Books](#)
- [How can I help during coronavirus crisis](#)
- [COVID-19 Kaggle Competition Announced](#)

Now Accepting 2020-21 F-GAP Nominations!

The Facilitated Graduate Applications Process (F-GAP) is an Alliance program that provides undergraduate Juniors and Master's students with the advice and assistance needed to begin the application process as they apply to graduate programs.



F-GAP will help students choose departments that are most appropriate to their goals and aspirations. The Alliance Community will work with the student as they prepare their applications to graduate programs and will assist in tracking the progress of their applications through the admissions process. The Alliance Community will assist in maximizing the chances that Alliance Scholars will be admitted, with support, to a department or program where they will thrive. We will pair each eligible student with one of our Doctoral Alliance Mentors who will work with the students local mentor to create a mentoring team that will aid in the application process.

If you know of a student who will be applying to graduate programs for Fall 2021 please submit student nominations here: <https://mathalliance.org/2020-fgap-nomination-form/>. As part of this submission, you will be asked to check a box stating that you have read the document, [“Selecting students for the F-GAP program: FAQs.”](#))



ASA Free Virtual Career Fair!

Undergraduate Students: Are you graduating soon with a bachelor's degree in statistics, data science, or a related field?

What? Undergraduates can post résumés for free!

When? Now through June 30

Register to create a profile and upload your résumé. You can even request to have your résumé reviewed. You will have access to the Virtual Career Fair and will be able to communicate with employers through our built-in online message service.

Once registered, you will receive an email with your credentials. We are planning several webinars from ASA leaders, including:

- Résumé Development
- Tips for Writing a Cover Letter
- Interview Skills

Are You Hiring: Participate in the ASA's Virtual Career Fair

The ASA is hosting a virtual career fair for graduating bachelor's degree candidates in statistics, data science, and related fields. Potential employers are encouraged to register.

Employer Access to the Virtual Career Fair Includes:

- Online résumé repository of candidate résumés
- A dedicated, internal messaging service for communication
- Ability to download all candidate information and résumés
- Your logo and a link to your website

Academic, government, and nonprofit organizations can access the fair for \$250. Corporate organizations can access the fair for \$500. The ASA's Corporate and Institutional Members may access this platform and receive all the benefits above at no cost. If you do not remember your organizational ASA ID, contact [Amy Farris](#).

[View the list of Corporate Members](#) [View the list of Institutional Members](#)

For more information visit: <https://ww2.amstat.org/virtualcareerservice/index.cfm>

Inspiring Talks

Seeking underrepresented minority mathematicians to give virtual talks to undergraduates and then meet with them to discuss what it is like to pursue a doctorate. The talks would be posted publicly as videos on Youtube and linked to from an inspiring talks webpage. The talks would be on the level of students who have completed vector calculus and linear algebra.

The honorarium is \$300 per talk. The speakers should have doctorates. Ideally we match speakers to specific classes that would like an online visitor and the professor can suggest the topic.

For more information please visit: <https://sites.google.com/site/professorsormani/home/outreach/inspiring-talks>

2020 PKAL STEM Leadership Institute



Institute I: July 8–13, 2020
Deadline: March 16, 2020

Institute II: July 15–20, 2020

The Claggett Center, Adamstown, Maryland

About the Institute

Enlightened institutions of higher education recognize the value of cultivating leadership capacity among STEM faculty and administrators. The **PKAL STEM Leadership Institute** empowers individuals to fully understand and implement the theory and practice of navigating the politics of change, addressing inter- and intrapersonal conflicts, and restructuring the institutional systems that limit our capacity for global competitiveness in science, technology, engineering, and mathematics.

This Institute—uniquely designed for early- and midcareer STEM faculty, principal investigators, and administrators—awakens and sensitizes its participants to the systems, structures, and influences of power and privilege within higher education, equipping them with the tools and skills needed to bring about social change in STEM. Nearly 60% of the Institute’s curriculum is grounded in the major tenets of experiential learning, including the state-of-the-art diversity simulation, **My Tenure Trek™ (MTT)**, which guides participants through real-world experiences that are representative of cultures, norms, and traditions that are distinctly different from their own.

Who Should Apply?

- Early- to midcareer STEM faculty with an interest in leading undergraduate STEM reform on their campuses, and nationally
- Principal investigators who lead undergraduate STEM reform initiatives
- Administrators (with STEM disciplinary expertise) of academic STEM units

Individuals from community colleges, minority-serving institutions, and/or historically underrepresented groups are strongly encouraged to apply.

For more information about the PKAL STEM Leadership Institute, visit <https://www.aacu.org/summerinstitutes/sli/2020> or contact pkalstemleadership@aacu.org.



Things to note in the AMS Notices

March

[A word from Catherine Roberts](#) (Alliance Mentor)

Early Career Section on *Dealing with Challenging Issues*

- [Promoting a Healthy Work Environment](#), Sarah Crown Rundell;
- [Self-Doubt and Imposter Syndrome](#), Brian Lehmann;
- [When and How to Say No](#), Judy Walker;
- [BAD Teaching Evaluations... Now What?](#), Harriet Pollatsek;
- [Handling Negative Teaching Evaluations](#), Deanna Haunsperger (Alliance Mentor);
- [What Do I Do When My Paper or Grant is Rejected?](#), Julie Bergner (Alliance Mentor);
- [“We Regret to Inform You...”: What to Do If Your Paper or Grant Is Rejected](#), Karen Lange

[Shining a Light on a Hidden Figure: Dorothy Hoover](#), Lily Khadjavi, Tanya Moore, Kimberly Weems (Alliance Mentor), and Ulrica Wilson (Alliance Mentor)

[Dr. Shirley McBay](#), Zerotti Woods (Alliance Scholar Doctorate)

[African American Women Honored with Congressional Gold Medals](#), Karen Saxe (Alliance Mentor)

[Election Results:](#)

- Alliance Mentors Maggy Tomova and Bianca Viray elected Council Members at Large;
- Alliance Mentors Tatiana Toro and Talithia Williams elected to the Nominating Committee

[2020 Class of Fellows of AMS](#), includes Alliance Mentors Lisa Fauci and Chikako Mese.

In [Mathematics People](#), Alliance Mentor Lisa Fauci named Fellow of AAAS

April

[Letters to the Editor, including one by Math Alliance Mentor, and Executive Council Member, Terrence Blackman](#)

[Regularity Theory for Nonlinear Diffusion Processes](#), by Math Alliance Mentor Eduardo Teixeira

[Enjoying Graduate School](#), by Math Alliance Mentor Karen Smith

[Preparing Doctoral Students for a BIG Career Path](#), by Lisa Davis

[Opening the Black Box: Applying for Government Jobs](#), Jennifer Pearl

[Early Career Paths at Los Alamos National Laboratory](#), by Mary Frances Dorn, Daniel O'Malley, Harsha Nagarajan, Navamita Ray, and Andrew Sornborger

[Becoming a Statistician](#), by Abbe Herzig

[Book review: Mathematics for Social Justice, by Gizem Karaali and Lily S. Khadjavi](#), Reviewed by Math Alliance Mentor Emille Davie Lawrence

[The Geometry of Toric Syzygies](#), by Math Alliance Mentor Christine Berkesch

Congressional Briefing: [AMS President Jill Pipher to Congress: "No Longer Secure: Cryptography in the Quantum Era"](#), by Math Alliance Mentor Karen Saxe

[Math Alliance Mentor Amie Wilkinson wins 2020 Levi L. Conant Prize](#)

May

[The Covering Method for Exponential Sums and Some Applications](#), by Math Alliance Mentor Ivelisse Rubio

[Ola Bratteli and His Diagrams](#), Tone Bratteli, Trond Digernes, George A. Elliott, David E. Evans, Palle E. T. Jorgensen (Math Alliance Mentor), Aki Kishimoto, Magnus B. Landstad, Derek W. Robinson, and Erling Størmer

[Math Alliance Mentor Darryl Yong wins 2020 Award for Impact on the Teaching and Learning of Mathematics](#)

[GROW wins 2020 Programs That Make a Difference Award](#)

[Math Alliance Mentor wins AWM Louise Hay Award for Contribution to Mathematics Education](#)

[Math Alliance Mentor Margaret Robinsons wins AWM M. Gweneth Humphreys Award for Mentorship of Undergraduate Women in Mathematics](#)

[Math Alliance Mentors Federico Ardila, Mark Tomforde, and Suzanne Weeks win MAA Deborah and Franklin Tepper Haimo Awards for Distinguished College or University Teaching of Mathematics](#)

Items of interest in AMSTATNEWS

March

Several items of interest in the March edition of the AMSTATNews are related to Women's History Month. We highlight some of these and other items of interest below:

[Alliance Mentor and Chair of the Math Alliance Executive Council Leslie McClure, and Alliance Mentors Aleksandra \(Se'sa\) Slavkovic, and Sherri Rose featured in the cover story "Celebrating Women in Statistics 2020"](#)

[President's Corner, Wendy Martinez](#)

[Meet Emilda B. Rivers, Director of the National Center for Science and Engineering Statistics](#)

[Alliance Mentors running for ASA offices:](#)

- Tyler McCormick, University of Washington (Business and Economics Statistics, Program Chair-Elect);
- Jun Yan, University of Connecticut (Statistical Computing, Chair-Elect);
- Kumer Das, University of Louisiana, Lafayette (Statistics and Data Science Education Council of Sections Representative)
- Haim Bar, University of Connecticut (Health Policy Statistics Chair-Elect)
- Ali Shojaie, University of Washington (Statistical Learning and Data Science Chair-Elect)
- Aleksandra (Sesa) Slavkovic, Penn State University (Social Statistics Chair-Elect)

April

[Game On! Celebrate Mathematics and Statistics Awareness Month, Donna Lalonde](#)

[Applications Encouraged for JSM Diversity Mentoring Program](#)

[Meet Sylva Collins, Director of the Office of Biostatistics, US Food and Drug Administration](#)

Due to concerns about the COVID-19 outbreak, the conference will be postponed a year. Tentative plans are to hold it in Utah next May, from May 17 to May 21, 2021.

34th Automorphic Forms Workshop

May 11-15, 2020
Moab Arts and
Recreation Center
Moab, Utah

REGISTRATION
NOW OPEN AT:
[http://automorphic
formsworkshop.org/](http://automorphicformsworkshop.org/)

DEADLINES:
March 15th
For Speakers
May 1st
All other Participants

To Contact the
Organizers, Email:
[organizers@
automorphicforms
workshop.org](mailto:organizers@automorphicformsworkshop.org)

JOURNAL OF
NUMBER
THEORY



**BYU
MATH**

RAMMP 2020 Summer Research Program

The Recruitment and Mentoring in Mathematics Program (RAMMP) will engage 10 area scholars in summer research activities in mathematics, hopefully culminating in publishable research. Undergraduate scholars will work in groups on research problems guided by faculty members. A stipend of \$4,000 (taxable) will be paid to participants in the program.

In addition to the research activities, there will be a weekly colloquium and learning seminars offered.

Location and dates- The RAMMP summer program for 2020 will be held June 1-July 23. We will meet daily Monday through Thursday each week at the City College of New York.

Mentors- This year's mentors will be:

- [Zajj Daugherty](#) (City College of New York)
- **Jay Jorgenson** (City College of New York)
- **Cesar Valverde** (Medgar Evers College)

Eligibility- The program is open to all undergraduate students in the NYC area who have completed mathematics courses requiring the writing of rigorous proofs. An introduction to proof course (e.g., Bridge to Advanced Mathematics, Discrete Mathematics) is sufficient. Participants may not take classes or hold other jobs for the duration of the program and are expected to attend all scheduled activities.

Application Requirements- The application requires:

- **Application Form:** Please complete [this application form](#).
- **A personal statement:** Please write a 1-2 page personal statement addressing:
 - ◇ Your background in mathematics including what mathematics you have enjoyed most, and what has led you to apply to this program.
 - ◇ Your experiences and views on diversity (pertaining to mathematics or to other areas of shared experience).
 - ◇ Your thoughts on your future plans after graduating from college. (It is okay not to know precisely what you plan to do, but you should have some ideas of what you think you might want to do.)
- **Transcript:** Email a copy of your transcript along with your personal statement (described above) to nycmathalliance@gmail.com. An unofficial transcript is fine.
- **Recommendation letter:** Please have at least one mathematics instructor send a letter nycmathalliance@gmail.com recommending you for the program.

For full consideration submit your complete application by March 20th. Later applications will be considered if space is available.

Research Topics: Research topics will be selected from the areas of interest of the mentors. This year's mentors are interested in projects in the subjects of:

- Combinatorial Representation Theory
- Number Theory

More details on the proposed projects are available [here](#).

Experience: Scholars will work in groups of 2-3 students on research problems in the above areas. The groups will meet daily with their mentor to discuss the project. In addition there will be:

- A weekly colloquium featuring interesting mathematics at the level of the scholars in the program.
- A workshop teaching LaTeX (a language for mathematical typesetting).
- A workshop on mathematical programming.

Support

This program is supported by the National Science Foundation under Grant No. DMS-1820731 which funds a proposal jointly written by Alliance members [Gautam Chinta](#), [Robert Donley](#), [Pat Hooper](#), [Sandra Kingan](#), [Stephen Preston](#), Cesar Valverde, [Bart Van Steirteghem](#), and [Fei Ye](#).

We also are grateful to [The City College of New York](#) for hosting this program and to [Brooklyn College](#), [Medgar Evers College](#), and [Queensborough Community College](#) for their support.

Contact

Please contact us by email at nycmathalliance@gmail.com if you have questions about this program or if you have any issues with applying.