# Math Alliance News

# Upcoming

MOCA Network Workshop Iowa State University Aug. 6-10, 2018

StatFest 2018 Amherst College September 22, 2018

Field of Dreams Conference St. Louis, MO Nov. 2-4, 2018

#### 2018-19 F-GAP Program

We are now accepting nominations for the 2018-19 F-GAP program.

If you know of a senior or Master's student who will be graduating in the Spring of 2019 and will be applying to graduate programs for Fall 2019 please submit a form here:

https://mathallian ce.org/2018-fgapnomination-form/



**David Goldberg** 

Executive Director

of the National Math Alliance

# **Thoughts from the Executive Director...**

Data, Data, Data!!

April is coming to a close, and there is so much going on with the Alliance. The F-GAP program is ramping up and those mentors who have good candidates for this program should nominate them soon! You'll be hearing more about all our



activities soon. For this month's notes I thought I would concentrate on data. First, I want to let our Alliance community know that Rebecca Lank has been working extremely hard to compile all the information we have on the Alliance into a database which we can interrogate for the purposes of understanding our own outcomes. In addition to just creating the database, Rebecca has been working hard to flesh out any missing data, and there was a lot of that initially. Since the Alliance started in 2006, we have had over

1,800 Alliance Scholars. Due to Rebecca's hard work, we now know where almost all those students went after their time as a Pre-doctoral Scholar. This is a great accomplishment, and Rebecca deserves a big thank you. We now know about a lot more of our Alliance Scholars who have obtained doctorates. Since the Alliance started, we have had at least 71 Alliance Scholar Math Science Ph.D.s, including 45 in the last three years. (At least 81 Alliance Scholars have received doctorates across all disciplines, and 53 in the last three years). We also have about 90 students we think may graduate with doctorates in the next couple of years. Also, we have new data on the results of F-GAP, and of those students who have responded to the surveys, 80-90% of them have entered graduate programs, and our overall retention rate is 78%, with a retention rate of 88% after 2 years. We have placed at least 259 F-GAP Scholars in graduate programs over the last four years, and we hope to hear about the outcomes of the 2017-18 F-GAP program soon. I think this constellation of data on our outcomes shows we really are making a difference for our students, our profession, and our country. This will help us with our sponsors, whether they be government agencies, private foundations, or our Center Partners and Members. We just had our annual Executive Council Meeting, and our Partners Council meeting, and it was great to be able to provide these groups our data. So, those of you who get our surveys, please, please, please complete them. We need the data!!

In recognition of our every increasing number of Ph.D.s (as described above), this year's Field of Dreams Conference will include a separate Career Fair. This will be a good chance for graduating doctoral students and recent graduates to meet potential employers in all sectors. If you are among those groups, please come be part of this event!! Employers who will have jobs in the next year: Please consider coming to the Career Fair! Free tables at our new Career Fair will be a new benefit of being a Member, or Partner in the Center for the National Math Sciences Alliance.

Speaking of data, I want to encourage our Alliance Scholars to consider the role data and data science will play in the mathematical professions in the future. Big data is going to be a crucial part of science and those that understand, can use, and can generate data science will be highly valued in the science professions. While we need some of our talented students to find their way into the full range of disciplines within the mathematical sciences, there will be more and more opportunities which are connected, in some way, with data, statistics, and data science. I don't want to talk any student out of pursuing degrees in pure math, because if that is your passion, we need you to pursue it. Just be aware of the changing role of data, see if there are opportunities to expose yourself to data science and statistics, and perhaps you'll find your passion somewhere in there. Data needs you too!!

# Mathematicians of Color Alliance (MOCA) Network Workshop

The Mathematicians of Color Alliance(MOCA) Network will be hosting a one week workshop for mathematicians of color to collaborate with a secondary mathematics teacher in their local community.

Mathematicians will share their expertise, experiences, and time with mathematics teachers in an effort to provide new perspectives, opportunities, and access to the teachers and their students of color.

The workshop will take place at Iowa State University (Ames, IA) on **August 6-10, 2018**. Participants will receive funding for travel and a stipend in the amount of \$1000 for participating in the workshop and periodic school-based collaborations. An application consists of a CV, personal statement, and completing a survey. The survey will be sent to applicants after the apply on MathPrograms. Postdoc, graduate students, and mathematicians in business, industry, or government are encouraged to apply also.

The Mathematicians of Color Alliance(MOCA) Network, is a network whose mission it is to create substantial and transformative relationships with students of color and their teachers in the school setting. The MOCA Network's goals include collaborating with teachers to develop and implement engaging mathematics with students of color in order to provide access to greater opportunities and to ensure these students are able to develop productive relationships with mathematics as a field that is welcoming and exhilarating. <u>Apply Here</u>

This workshop is funded by NSF Includes Grant #1744463

### **CUNY Research Summit: CREATIVITY IN STEM**

The Editors of the Mathematics Teaching-Research Journal in conjunction with CUNY faculty and the CUNY Office of Research are delighted to invite for

#### CUNY Research Summit: *CREATIVITY IN STEM* on Saturday, May 12, 2018 between 8:30 am and 5 pm to Hostos Community College, 500 Grand Concourse and 149th Street, Bronx.

The registration for the event is open through the Eventbrite until April 5, 2018. Please register in advance: https://www.eventbrite.com/e/cuny-conference-creativity-in-stem-tickets-43505684674

The submission for abstracts for Discipline Sessions and Break-out Sessions is already open via Google docs goo.gl/C8reNq

While submitting your abstract try to address the following aspects of creativity: What do you consider creative and why? How do you measure the "depth" of creativity? How do you teach creativity and assess the process of learning? How do you facilitate the moments of discovery? Do your methods and observations remain in alignment with any known theory of creativity or do you need to build your own theory? Your thoughts and observations on the role of creativity in interesting and retaining female and minority students in STEM are sought for and welcome.

Questions and inquiries can be send to the organizers: Bronisław Czarnocha (<u>bronisuavec2@gmail.com</u>), Małgorzata Marciniak (<u>mmarciniak@lagcc.cuny.edu</u>) and William Baker (<u>wbaker@hostos.cuny.edu</u>).

# **StatFest 2018:** A One Day Conference for <u>Undergraduate Students</u>

Learn about statistics and data science careers in industry, government, and academia. Underrepresented students (African American, Hispanic, Native Americans) with analytical interests are particularly encouraged to attend and learn about exciting career and graduate study opportunities in statistics and data science. There are ample opportunities to network during breaks and the poster session.

Amherst College is one of the most diverse liberal arts colleges in the country. We are dedicated to the centrality of inclusiveness. Date: Saturday, September 22, 2018

Time: 9:30-5:00 p.m.

**Place:** Amherst College, Amherst, MA

**Contact:** Nicholas Horton nhorton@amherst.edu Renee Moore renee.moore@emory.edu

**Cost:** Free (though preregistration is required by Wednesday, September 19th)

For more information and to register visit: <u>https://nhorton.people.</u> <u>amherst.edu/statfest</u>

Sponsored by the American Statistical Association's Committee on Minorities in Statistics





Other sponsors: RStudio, Google, Boston Chapter of the ASA, Five College Statistics Program, and UMass/Amherst Biostatistics.

# **Keynote Speakers**



**Fernando Perez** created iPython and co-created Project Jupyter. He is a Professor of Statistics at the University of California/Berkeley and Senior Fellow of the Berkeley Institute for Data Science.



Scarlett Bellamy is Past-President of ENAR (Eastern North American Region) of the International Biometrics Society. She is a Professor of Biostatistics and director of the graduate program at the Department of Epidemiology and Biostatistics, Drexel University Dornsife School of Public Health.

# University of Rhode Island Department of Computer Science and Statistics Position Announcement

#### University of Rhode Island Department of Computer Science and Statistics

The Department of Computer Science and Statistics in the College of Arts and Sciences (A&S) at the University of Rhode Island invites applications for a tenure-track Assistant Professor of Statistics position with appointment to begin the academic year 2018-2019.

#### **DUTIES AND RESPONSIBILITIES:**

The selected candidate for this position will be expected to teach a variety of undergraduate and graduate courses in statistics, develop new statistics classes at the undergraduate and graduate level, keep an active research program, seek external funding, advise and supervise graduate students in statistics or related fields (through joint supervisions), participate in service activities and provide consulting services to students and other faculty in the Department, College and University.

#### **REQUIRED QUALIFICATIONS:**

1. Ph.D. with a concentration in statistics, biostatistics or closely related fields (degree must be earned prior to 31 August 2018).

2. Demonstrated ability to conduct academic research and publish in peer-reviewed journals.

3. Demonstrated ability and interest in teaching graduate and/or undergraduate courses in statistics.

4. Demonstrated ability to develop and maintain a collaborative and internally/externally funded research program in statistics and/or related fields.

5. Demonstrated ability to work with diverse groups/populations.

6. Demonstrated interpersonal communication skills.

7. Good command of written and spoken English.

#### **PREFERRED QUALIFICATIONS:**

1. While all areas of methodological and applied research in statistics or related fields will be fully considered, statisticians with research interests in areas such as Bayesian methods, functional data analysis, dimension reduction methods, large dataset analysis, multilevel modeling, meta analysis, environmental statistics or social statistics are especially encouraged to apply.

2. Demonstrated ability to help build applied undergraduate and graduate statistics, analytics, data science, and/or informatics programs.

3. Demonstrated ability and/or experience advising and/or mentoring students.

4. Demonstrated interest in developing collaborative research and/or consulting to support the

interdisciplinary nature of programs within the Department and the University as a whole.

5. Demonstrated commitment and/or interest to participate in service and outreach committees. ALL REQUIREMENTS ARE SUBJECT TO POSSIBLE MODIFICATION TO REASONABLY

ACCOMMODATE INDIVIDUALS WITH DISABILITIES.

#### **APPLICATION DEADLINE**

This is an open until filled search. First consideration will be given to applications received by April 20, 2018. Second consideration may be given to applications received by May 20, 2018. Applications received subsequent to second consideration date (May 20, 2018) may not be given full consideration.

#### SPECIAL INSTRUCTIONS FOR APPLICANTS

Applications must be submitted directly online only at: http://jobs.uri.edu/postings/3234

Please attach the following 4 (PDF) documents to your online Faculty Profile Application:

1. Cover letter including a description of how your qualifications match the requirements for the position.

2. Curriculum Vitae that includes your research interests, education history, a list of publications and awards, a list of courses taught or assisted, titles of conference presentations, consulting experience, and mentoring/advising experience (as one complete document).

3. Teaching statement (limited to two pages) and teaching evaluations (if applicable) as a single document.

4. Research statement (limited to three pages) as one complete document.

In addition, please ask 3 referees to send a letter of recommendation by email to: Statistics Search Committee Chair, Department of Computer Science and Statistics, URI, Email: <u>searchcss@etal.uri.edu</u>

# Arizona State University Mathematical Biology Postdoc Position Announcement

#### Post-doctoral Research Associate (Mathematical Biology)

The School of Mathematical and Natural Sciences at Arizona State University (ASU) seeks applicants for a postdoctoral research position in Applied Mathematics or Computational Biology (see department info at <u>https://newcollege.asu.edu/mns</u>). Given the multidisciplinary nature of the research, a highly self-directed, creative and self-motivated individual is sought. The position is a one-year full-time fiscal-year appointment with an anticipated start date of 7/1/18. Salary range is dependent on experience, with associated University benefits.

#### **Essential Functions**

Investigate retinal degeneration via mathematical and computational approaches. This involves creating systems of equations that model aspects of the retina in normal vision and/or degeneration, analyzing such a system analytically and computationally, and interpreting the results in terms of the application. Expertise in MATLAB, Python, or other similar software package is essential to conduct the computational aspect of the research. Additional expertise should either be in physiology with an emphasis on the retina or in mathematical biology with an emphasis on population models and multi-scale methods to analyze such systems. Wetlab experiments will not be conducted but collaboration with wetlab experimentalists will be done. Excellent oral and written communication skills required.

#### **Duties and Responsibilities**

The duties of this position involve research in applied math or computational biology, and writing grants. Specifically, this individual will:

- Conduct research as required to meet the goals of projects
- Contribute and analyze data for research publications, grants, and grant reports
- Draft manuscripts for publication reporting results of original research
- Draft grant applications for external funding to advance and augment existing projects
- Work as part of research team with graduate students and faculty.
- Supervise research personnel, including undergraduate researchers

#### **Minimum Qualifications**:

- Ph.D. in a field appropriate to the area of assignment by the time of appointment.
- Appropriate computational skills to undertake this research.

#### **Preferred Qualifications**

- Experience with and knowledge of multiscale approaches in applied mathematics.
- Knowledge of Python and MATLAB.
- An established track record of research in applied mathematics, computational mathematics/ biology, or statistics and an ability and willingness to learn from and collaborate with researchers in the other two areas
- Experience working with datasets or data analytics.
- Evidence/experience pursing grant funded research.

#### **Instructions to Apply**

Email application to <u>mns.dept@asu.edu</u>. Application deadline is **May 3, 2018**; if not filled, every week thereafter until the search is closed. Complete applications must include a cover letter that briefly explains the candidate's interest and fit with the position, unofficial transcripts, CV/resume, personal statement addressing the candidate's research, statement of teaching experience and philosophy, and at least three letters of recommendation, one of which should address teaching qualifications. Requested material should be in one document. Only electronic applications are accepted for this position. Please reference Job #12380 when applying.

ASU does not pay candidates for travel expenses associated with interviewing, unless otherwise indicated by the department at the time of call for interview. ASU conducts pre-employment screening for all positions which includes a criminal background check, verification of work history, academic credentials, licenses, and certifications.

Arizona State University is a new model for American higher education, an unprecedented combination of academic excellence, entrepreneurial energy and broad access. This New American University is a single, unified institution comprising four differentiated campuses positively impacting the economic, social, cultural and environmental health of the communities it serves. Its research is inspired by real world application blurring the boundaries that traditionally separate academic disciplines. ASU serves more than 80,000 students in metropolitan Phoenix, Arizona, the nation's fifth largest city. ASU champions intellectual and cultural diversity, and welcomes students from all fifty states and more than one hundred nations across the globe.

Arizona State University is a VEVRAA Federal Contractor and an Equal Opportunity/Affirmative Action Employer. All qualified applicants will be considered without regard to race, color, sex, religion, national origin, disability, protected veteran status, or any other basis protected by law. ASU's full non-discrimination statement (ACD 401) and Title IX policy are located at <u>https://www.asu.edu/aad/manuals/acd/acd401.html</u> and <u>https://www.asu.edu/titleIX</u>.