# Math Alliance News 

Building a New American Community in the Mathematicel and Statistical Sciences
Upcoming Brents

NAM FCRTE Meeting
Morehouse College
March 24-25, 2017
NYC Math Alliance Meeting
City College NY, NY
May 13, 2017
SACNAS Leadership Inst.
Washington, DC
July 17-21, 2017
MAA MATHFEST
Hilton Chicago, IL
July 26-29, 2017
2017 FOD Conference
Renaissance St. Louis Airport November 3-5, 2017

## NYC Math Sciences Alliance Kickoff Event May 13!

Our newest regional Alliance, the NYC Math Sciences Alliance, will have an organizational meeting for faculty mentors, and other interested parties, on Saturday, May 13 at the North Academic Center of City College. The meeting will take place from 10:00AM-3:00PM. National Alliance Board member William Yslas Vélez will deliver the keynote address and lunch will be provided.

Other sessions will discuss mentoring, the work of the National Alliance and other regional alliances, organizing the NYC Math Sciences Alliance, and setting the goals for this new regional network. We hope many local mentors, and those who are interested in learning more about both the NYC Math Sciences Alliance, and the National Alliance can attend. The conference website and registration can be found at

## https://mathalliance.org/nyc-math-sciences-alliance-meeting/.

## Gulf State Alliance Conference

## Gulf States Alliance holds its first conference!!!



The Gulf States Math Alliance (https://www.math.uh.edu/gsmath/index.html) held its inaugural conference February 24-26 at University of Texas, Arlington. The conference was organized by Jianzhong Su (UT Arlington), Tucay Aktosun (UT Arlington), Joe Omojola (SUNO), Theresa Martines (Incarnate Word), Gerard Buskes (Mississippi), Hristo Kojouharov (UT Arlington), and Michelle Lacey (Tulane). There were 117 participants, including 85 students and 32 faculty. Campuses from the south of Texas all the way to Mississippi were represented. Phil Kutzko, Director of the National Alliance was the keynote speaker, and remarked that this meeting was larger than the first few Field of Dreams conferences! There were panels discussing various aspects of Alliance activities, including REUs, F-GAP, the graduate application process, the NSF math bridge to doctorate program at UT Arlington and mentoring practices. There was a Graduate School Fair, and a student poster session, and several posters received recognition at the conference banquet.

Go to https://www.math.uh.edu/gsmath/Pics/2017meeting-GSMath.pdf to see the conference poster. Photos of this conference are available at the National Alliance's Flickr page (https://www.flickr.com/photos/mathalliance/albums) . Plans are under way for next year's Gulf States Math Alliance Conference, tentatively to be hosted by Tulane University in New Orleans!
We hope to see you there.


## Now Accepting Nominations for the 2017-18 FGAP Program



The Facilitated Graduate Applications Process (FGAP) is an Alliance program that provides undergraduate seniors and Master's students with the advice and assistance needed to begin the application process as they apply to graduate programs. FGAP 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 are now accepting nominations for the 2017-18 FGAP program. If you know of a senior or Master's student who will be graduating in the Spring of 2018 and will be applying to graduate programs for Fall 2018 please submit a form here: https://mathalliance.org/2017-fgap-nomination-form/ to nominate students.

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.
"FGAP has substantially helped me in finding the right programs to which I should apply."

"The FGAP program is excellent! My facilitator assisted and encouraged me at every stage of the application process."

"The attention and help that I receive of my FGAP facilitator was outstanding. The tips given by him to improve my Personal Statement, CV and others application materials were phenomenal."


## Microsoft Research Dissertation Grant

Broadening participation in computing is a core part of Microsoft's values; accordingly, we are excited to introduce a new initiative, the Microsoft Research Dissertation Grant, that aims to recognize, support, and mentor diverse doctoral students as they complete their dissertation research in computing-related fields.

This grant program is open to doctoral students in their fourth year or beyond, studying computing topics at universities in the United States and Canada, who are from under-represented groups (women, African-American/Black, Hispanic/ Latino, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, and/or people with disabilities). The program allows students to apply for a research grant of up to $\$ 20,000$ to support their dissertation research; grant recipients will also get to take part in a two-day career workshop at Microsoft Research Redmond this fall. Grant applications for 2017 will be due on April 7. You can read more about the Microsoft Research Dissertation Grant and find application instructions at http://aka.ms/msrgrant. Also, check out today's blog announcement.

# Data-Driven Modeling of Collective Behavior And Emergent Phenomena in Biology 

## Data-Driven Modeling of Collective Behavior and Emergent Phenomena in Biology (DDM-Bio): June 5-7, 2017

Application Deadline: April 17, 2017.<br>Location: SAMSI in Research Triangle Park, NC.

## Description

Collective behavior and emergent phenomena often arise in complex adaptive systems. Understanding the mechanisms that underlie such processes is simultaneously challenging and important to developments in engineering, technology, and advancing basic knowledge in the science of biological systems. This collaborative workshop is targeted for researchers and students with research interests in collective behavior and emergent phenomena in biology and its applications. The participants will be organized into interdisciplinary teams according to their interests and complementary skills. Each team will be tasked with exploring, analyzing and modeling original data sets provided by biologist attendees. The event will be similar in spirit to a hackathon in computer science, with the goal of finding new ways to understand the provided biological data. We emphasize that the workshop is meant to involve active participation with attendees working together across disciplines to solve problems in current research. In addition, regular debriefing sessions will be organized throughout the 3 days of the workshop in order for each team to provide updates to and receive feedback from the rest of the participants on their progress.

The workshop will be limited to about 40 participants and funding support priority will be given to U.S. based researchers.
Questions: email ddm-bio@samsi.info
Organizing Committee
Simon Garnier, Dept. of Biological Sciences, New Jersey Institute of Technology
Jason M. Graham, Dept. of Mathematics, University of Scranton
SAMSI Directorate Liaison: Sujit Ghosh

## NAM Faculty Conference on Research and Teaching Excellence

The National Association of Mathematicians' (NAM) Faculty Conference on Research and Teaching Excellence (FCRTE) is a two-day meeting, typically Friday and Saturday in the Spring, which rotates around the country based on NAM's regional structure. The conference is geared for faculty from Historically Black Colleges and Universities (HBCUs). The conference consists of five components:

## - A Short Course in Computational Science

- The Albert Turner Bharucha-Reid Lecture
- Recognition Banquet
- Contributed Talks
- Regional Panel Discussion

The 2017 FCRTE will be held March 24-25 at Morehouse College. Shelby Nicole Wilson (Morehouse College) will give the Bharucha-Reid Lecture, and the Regional Panel Discussion will focus on "Best Practices for Maintaining a Research Program at an HBCU". More information can be found at the website http://nam-math.org/fcrte.html

## MAA Project NExT

MAA Project NExT (New Experiences in Teaching) is a year-long professional development program of the Mathematical Association of America (MAA) for new or recent Ph.D.s in the mathematical sciences. The program is designed to connect new faculty with master teachers and leaders in the mathematics community and address the three main aspects of an academic career: teaching, research, and service.

## Recent program sessions have included:

-getting your research and grant-writing off to a good start,

- innovative teaching and assessment methods and why they work,
- finding your niche in the profession,
- attracting and retaining underrepresented students,
- balancing teaching, research, and service demands,
- starting an undergraduate research program, and
- preparing for tenure

MAA Project NExT Fellows join an active community of faculty who have gone on to become award-winning teachers, innovators on their campuses, active members of the MAA, and leaders in the profession.
MAA Project NExT welcomes and encourages applications from new and recent Ph.D.s in postdoctoral, tenure track, and visiting positions. We particularly encourage applicants from under-represented groups (including women and minorities).
Applications for the 2017 cohort of MAA Project NExT Fellows are due on April 15, 2017 and can be found at projectnext.maa.org.
Contact: projectnext@maa.org

# SAMSI's Undergraduate Workshop 

> Undergraduate Workshop: May 14-19, 2017
> http://samsi.us11.list-manage.com/track/click?u=f8d81 ec133891cc606c5dc3af\&id=8e46970bc0\&e=873e5bd3a2
> Application deadline is March 27, 2017
> Location: SAS Hall, NC State University Campus, Raleigh, NC.
> This week long workshop will provide an introduction to applied mathematical and statistical research in the area of astronomy and optimization. Talks will be presented by statisticians and applied mathematicians who work with analyzing data arise in modern astronomical and space sciences research as well as on optimization methods with applications to energy and environment. For a good part of the week, students, in teams of 3 or 4, will use data from different sources to investigate a variety of questions related to several exciting and emerging areas of research ranging from the data produced by both ground-based and space-based astronomical surveys at many wave-bands to cosmology, exoplanets, gravitational waves and synoptic surveys. The students will also explore the recent developments in optimization including semidefinite programming, Bayesian optimization and decision analysis, Mixed-integer PDE-constrained optimization etc. Finally, student teams will be prepared to make short presentations on the last day of the workshop, and have the option of having their final presentations reside on the SAMSI website. While students from universities not in the U.S. are welcome to apply, please be aware that priority is given to students who are enrolled at U.S. schools. Applications received by Monday, March 27th, 2017 will receive full consideration.

SAMSI will reimburse pre-approved and appropriate travel expenses as well as provide food and lodging.
Questions: email ugworkshop@samsi.info
SAMSI Directorate Liaison: Ilse Ipsen

## MAA MATHFEST 2017 Math Potluck: A Student Swap Session

Calling all undergrads and faculty advisors! Does your department have (or want!) a Math Club or student chapter of the AWM, MAA, PME, or SIAM? This session will provide a forum for sharing your favorite or most successful student activity. The presenter(s) will provide a "how-to" for a single math event that a math club or student chapter has held. Together, we will build a toolbox of successful activities to take back to each of our campuses! Following the morning presentations, a free lunch will be held for all presenters and attendees of this session to promote continued discussion and collaboration amongst participants. Please indicate in your abstract submission whether your group is a Math Club or student chapter of AWM, MAA, PME, or SIAM.

The abstract submission is April 30, 2017. For more information visit: http://www.maa.org/meetings/mathfest-2017

## Visiting Assistant Professor of Math Position at Pomona College


#### Abstract

Pomona College seeks applicants for two full time, non-tenure-track positions in pure or applied mathematics or statistics, one for two years and another for three years, beginning July 1, 2017. Duties will include teaching five semester courses per year and possible direction of student senior projects. The ideal candidates will be committed to excellence in teaching and research, and will be excited about mentoring students and directing student research. The department is particularly interested in candidates who have experience working with students from diverse backgrounds and a demonstrated commitment to improving access to and success in higher education for underrepresented students. Please submit applications to MathJobs.org.


Application includes: cv, graduate transcripts, three or more letters of recommendation (at least one evaluating teaching), a description, for the non-specialist, of research accomplishments and plans, \& a statement of teaching philosophy. All applications received before March 10, 2017 will be fully considered. Applications will be accepted until the position is filled. Pomona College supports equal access to higher education and our faculty and staff value working in a richly diverse environment. The abstract submission is April 30, 2017.

## Tenure Track positions available at California State Polytechnic, Pomona

California State Polytechnic University, Pomona (Cal Poly Pomona) invites applications for three tenure-track positions at the rank of Assistant Professor or Associate Professor to begin Fall 2017 - one each in the departments of Electromechanical Engineering Technology, Mathematics \& Statistics, and Psychology \& Sociology - to create a cluster of faculty with a commitment to working together to implement and disseminate research-based pedagogy in STEM.

Responsibilities include teaching undergraduate courses, advising students, conducting research, and providing service to the department, college and university. Successful candidates will demonstrate the potential to engage in innovative research-based pedagogy in STEM or to conduct research in STEM education or related areas of Engineering, Science, Mathematics, Psychology or Sociology. Applicants whose work incorporates a global perspective and a commitment to diversity in higher education are particularly encouraged to apply.

## Minimum Qualifications

A doctoral degree (PhD preferred) in an area appropriate to the hiring department (see below) by September 1, 2017. Excellent written and oral communication skills.
Demonstrated commitment to undergraduate teaching.
Demonstrated commitment to working with diverse student and community populations.
Demonstrated potential for success in scholarship.

## Additional Discipline Specific minimum qualifications:

Engineering- A PhD in engineering, engineering education or a closely-related field. Candidates must be able to effectively teach theory as well as develop innovative lab projects. Successful candidates will help with the enhancement of research and teaching laboratories, and other curriculum development.

Mathematics \& Statistics- A PhD in mathematics, statistics, mathematics education, statistics education, or related area. Experience teaching at the undergraduate level. Candidates must be able to teach a broad range of undergraduate and graduate level classes in mathematics or statistics, and show potential for supervising master's thesis students.

Psychology \& Sociology- PhD or other appropriate terminal degree in psychology (educational, social, cognitive or I/O psychology) or sociology (education, social justice, race/gender, quantitative/mixed methods, science, technology, social work), or related social science discipline. Demonstrated ability to be responsive to the educational equity goals of the university and its increasing ethnic and international character.

The position is open until filled. First consideration will be given to completed applications received no later than March 2, 2017. Early response is encouraged.
For more information please visit:
http://www.cpp.edu/~faculty-affairs/open-positions/college-unit/sci/stemcluster.shtml

## Assistant or Associate Professor of Mathematics Opening at Centre College

The Centre College Mathematics Program invites applications for a position in mathematics at the Assistant or Associate Professor level to start in August 2017. The Mathematics program seeks a devoted teacher-scholar who will enhance the living, learning, and teaching environment at Centre College with their lived experience, ideas, perspectives, and scholarship. Their contributions will push Centre students and Centre faculty to consider new ideas and viewpoints. A Ph.D. in Mathematics or Statistics or a related field at the time of appointment is preferred, although ABD applicants will be considered. The successful candidate will be expected to teach a range of mathematics courses. Additionally, the successful candidate must demonstrate a serious commitment to excellent teaching in a nationally ranked, residential liberal arts college environment. Ongoing scholarly activity, including such work as collaborative research with undergraduates, is expected and supported by the college. For more information on the Mathematics Program at Centre please visit our website (http://web.centre.edu/mat).

This position is part of a college-wide diversity initiative that will add new tenure-track positions in each academic division. As an institution that values inclusion, Centre College desires a faculty that reflect the diversity found within our student body, and across the nation, and the college intends for the person hired in this position to contribute to our achieving that goal.
Centre College is committed to an environment that welcomes and supports diversity. Centre strives to create an environment where differences are celebrated rather than discouraged, where the individuals have the opportunity to exchange ideas and share in the richness of mutual experiences. Please view the Statement of Community.
Centre College is a highly selective liberal arts college, listed by U.S. News \& World Report in the top fifty liberal arts colleges in the nation. With a growing student body of about 1,400 students, classes are small and academic standards are high. The College is located in Danville, Kentucky, a small town of 18,000 recognized for its high quality of life. It is within easy driving distance of Lexington, Louisville, and Cincinnati. For information concerning the college, visit our web site at www.centre.edu.
To apply, please go to http://apply.interfolio.com/40908 and submit a letter of application, a curriculum vitae, copies of your undergraduate and graduate transcripts (photocopies are acceptable), three letters of recommendation, a statement of your teaching philosophy and a short description of your research interests which specifically addresses involvement of undergraduates. In addition, candidates must include a diversity statement that should explain the importance of diversity and inclusion and how you would contribute to and/or address the issues of diversity and inclusion at Centre. Review of applicants will begin March 23, 2017. Centre College is an Equal Opportunity Employer.

## Visiting Lecturer in Mathematics Position at Maryville College

Maryville College, a selective four-year liberal arts college committed to superior teaching, invites applications for a visiting instructor position for the 2017-2018 academic year. Qualified candidates will possess an advanced degree in mathematics or a closely related discipline. Teaching experience in a liberal arts undergraduate environment is preferred, and a commitment to teaching excellence is essential. Responsibilities will include teaching first-year courses in quantitative literacy, college algebra, and precalculus. Other teaching responsibilities will depend on the expertise of the successful candidate.

Founded in 1819, Maryville College is one of the oldest baccalaureate-granting institutions of higher learning in the South. Consistently ranked in the top tier of Southern colleges in national magazines, the College is affiliated with the Presbyterian Church (USA). The curriculum is notable for its two-semester Senior Study research requirement and strong liberal arts core program that incorporates career exploration and preparation. The student body of about 1200 is drawn mostly from the Southeast, Middle Atlantic States and the Midwest. Located in Maryville, Tennessee, Maryville College is ideally situated between the Great Smoky Mountains National Park and Knoxville, the state's third largest city. It is within minutes of Oak Ridge National Laboratory, the University of Tennessee, and the major research facilities of Oak Ridge Associated Universities (MC holds associate membership).

Applications received by March 6, 2017 will be guaranteed full consideration. Complete applications must include a letter of interest, curriculum vitae, graduate transcripts, statement of teaching philosophy, and three letters of reference (two of which address teaching experience and potential). Applications should be submitted electronically to math.search@maryvillecollege.edu. Cover letters may be addressed to Dr. Jeff Bay, Chair, Division of Mathematics \& Computer Science, Maryville College.

Maryville College is an equal opportunity employer, and specifically invites applications from minorities.

## THE BOSTON UNIVERSITY SUMMER INSTITUTE FOR BIOSTATISTICS

## Attention all mathematics, statistics, and science students

 seeking a summer opportunity!June $5^{\text {th }}-$ July $14^{\text {th }} 2017$
What is SIBS?

- A six-week program to explore how to apply quantitative methods to investigate important health issues
- The opportunity to learn from recognized experts in public health and meet practicing biostatisticians, epidemiologists, and statistical geneticists

$$
\log \left(\frac{p}{1-p}\right)=e^{\beta_{0}+\beta_{1} x_{1}+\beta_{2} x_{2}}
$$



## Life in Boston

- Extracurricular visits to Boston area attractions include: a Boston Red Sox game, Boston Duck Tours, Museum of Science/OMNI Theater, and more
- Housing accommodations at BU's on-campus historic brownstones overlooking the Charles River

What is Biostatistics?

- The fundamental component of biomedical and public health research integrating mathematical, statistical, and biological principles.


## BOSTON UNIVERSITY

## Educational \& Financial Benefits

- Costs for housing, meals, travel tuition, and extracurricular activities are covered by the program
- Hands-on training using SASe and R, two statistical computing software widely used in the field
- Learn to work with big data and gain experience using a Linux duster
- Program topics include: biostatistics analysis, epidemiology. design and conduct of dinical trials, and statistical genetics
- Train with leading researchers using data from the renowned Framingham Heart Study and the Jackson Heart Study

Eligibility


- Undergraduate and beginning graduate students majoring in mathematics, science, or other quantitatively oriented areas of study
- Applicants must be American citizens or permanent residents of the United States


## Priority given to applications

submitted prior to March 6 ${ }^{\text {Hh }} 2017$
For more information and to apply online visit the website at http://sph.bu.edu/sibs


## 2017 Linton-Poodry SACNAS Leadership Institute

## Postdocs, early career, and mid-career professionals

## For more Information:

http-//sacnas.org/events/leadership

## Application Period:

January 24 to March 20, 2017

## Institute Date:

July 17-21, 2017
Washington, DC

## Sample Sessions:

- Creating a Leadership Development Plan (LDP)
- Developmental Networking
- Leading Change
- Emotional Intelligence
- Building and Maintaining High Performance Teams


Arlwnuing Chicanos/Hispanies

- Native Americans in Science

The Linton-Poodry SACNAS Leadership Institute (LPSLI) provides premier training for motivated underrepresented minority (URM) scientists who wish to master the skills necessary to lead institutional transformation. Developed in collaboration with the American Association for the Advancement of Science (AAAS). the LPSLI is an intensive five-day course featuring small group exercises, keynote speakers, leadership development planning. networking opportunities, and extensive community building among selected participants.

## Eligibility:

- Must be a SACNAS member at the time of application
- Doctorate degree required
- STEM field preferred
- Postdocs, early career, and mid-career professionals in academia, industry. government, and non-profits are invited to apply
- Applications are reviewed by a committee of SACNAS members and leaders

The LPSLI is a fully funded program that provides travel, hotel and some meals for its participants.

For more information:
Eben Lindsey, MA, Senior Program Manager, Leadership Initiatives eben@socnas.org $=$ http://socnas.orglevents/leadership

Tel 83I-459-0170 ext. 238


