Math Alliance News

Upcoming Events

Gulf States Alliance Conference

The Univ. of Texas, Arlington February 24-26, 2017

SIDIM

Univ. of Puerto Rico in Ponce March 3-4, 2017

Fostering Diversity in Biostatisitcs Washington, DC

March 12, 2017

MSRI Critical Issues in

Mathematics Education MSRI March 15-17, 2017

NAM FCRTE Meeting

Morehouse College March 24-25, 2017

SACNAS Leadership Inst. Washington, DC July 17-21, 2017

MAA MATHFEST

Hilton Chicago, IL July 26-29, 2017

Iowa Summer Institute in Biostatistics

Iowa Summer Institute in Biostatistics -University of Iowa College of Public Health, June 3 – July 21, 2017.

The <u>Iowa Summer Institute in Biostatistics</u> (ISIB) objective is to provide biostatistical training and applied research opportunities to undergraduates. ISIB is 7 weeks: Instruction will be through case based instruction of real biomedical research; computer laboratory training; projects; and clinical and translational research enrichment activities. Students will be matched with a Biostatistics faculty member for their research projects. The projects will give students exposure to research and opportunities to see medical science in action through biostatistics.

After the supervised research, students present their accomplished research during a Research Symposium. Students will also receive advice regarding graduate school programs and the application process, as well career opportunities in the field of biostatistics.

There are no fees or tuition costs associated with participation in the program. Roundtrip transportation, housing and meal allowance will be provided, as well as tuition for the 3 s.h. course.

For additional information and online application: <u>http://www.public-health.uiowa.edu/isib/</u>.

Philip Kutzko addresses MAA Minority Chair's Breakfast at JMM



Professor Philip Kutzko, Director of the Alliance, was the featured speaker at the annual MAA Minority Chairs Breakfast at the Joint Mathematical Meetings in Atlanta, on January 4th. The gathering of about 30 people representing several academic institutions and mathematical organizations, was one of the kick off events of the Joint Meetings. Professor Kutzko gave a short

presentation on the accomplishments and structure of the Alliance, the move to Purdue, and the need for the mathematical sciences community to determine the place and role of the Alliance within that community. There was then a productive discussion with many of attendees sharing ideas on this topic.

MAA MATHFEST 2017 Math Potluck: A Student Swap Session

Math Potluck: A Student Swap Session

Description: 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

MSRI Workshop "Critical Issues in Mathematics Education 2017"

Critical Issues in Mathematics Education 2017: Observing for Access, Power, and Participation in Mathematics Classrooms as a Strategy to Improve Mathematics Teaching and Learning

Dates: March 15-17, 2017 Location: MSRI: Simons Auditorium, Baker Board Room, Atrium Registration Deadline: March 17. 2017 Website: https://www.msri.org/workshops/836

Description: Success rates in mathematics as well as recruitment and retention rates in the mathematics pipeline are low at all education levels and are, across predictable demographics, disproportionately low for students who are women, Latin@, Black, American Indian, recent immigrants, emergent bilinguals/multilinguals, and poor. Efforts to address these low rates often focus on programmatic solutions such as creating mentoring or bridge programs to address perceived deficiencies. While these programs achieve some success, evidence suggests that they may not substantially improve students' subsequent success in mathematics or meaningfully address the ways that students experience mathematics instruction.

The 2017 CIME workshop will focus on observations of mathematics classrooms through the lens of equity. Specifically, we will use observation as a tool for understanding and improving imbalances of access, participation, and power in mathematics teaching and learning. In doing so, we seek to better understand students' experiences in mathematics classrooms in order to improve academic success, recruitment and retention, and meaningful experiences for historically marginalized populations.

UAB June short course - The Mathematical Sciences in Obesity

UAB's Nutrition Obesity Research Center invites you to join us at our NIH-funded short course "The Mathematical Sciences in Obesity" at the University of Alabama at Birmingham, 6/26/2017 - 6/30/2017.

The mathematical sciences including engineering, statistics, computer science, physics, econometrics, psychometrics, epidemiology, and mathematics qua mathematics are increasingly being applied to advance our understanding of the causes, consequences, and alleviation of obesity. These applications do not merely involve routine well-established approaches easily implemented in widely available commercial software. Rather, they increasingly involve computationally demanding tasks, use and in some cases development of novel analytic methods and software, new derivations, computer simulations, and unprecedented interdigitation of two or more existing techniques. Such advances at the interface of the mathematical sciences and obesity research require bilateral training and exposure for investigators in both disciplines.

This course on the mathematical sciences in obesity research features some of the world's finest scientists working in this domain to fill this unmet need by providing nine topic driven modules designed to bridge the disciplines.

For full details of the course, please refer to our website at <u>https://www.uab.edu/shp/home/energetics/courses/</u> <u>mathematical-sciences-shortcourse/fourth</u>. Limited travel scholarships are available to young investigators. Please apply prior to Fri 3/03/2017. Accepted applicants will be notified no later than Fri 3/10/2017.

Women, members of underrepresented minority groups and individuals with disabilities are strongly encouraged to apply. We look forward to seeing you in Birmingham this summer!

Visiting Assistant Professor of Math Position at Pomona College

<u>Pomona College</u> 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 <u>MathJobs.org</u>.

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

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

Apply:

http://samsi.us11.list-manage.com/track/click?u=f8d81ec133891cc606c5dc3af&id=8e46970bc0&e=873e5bd3a2 Application deadline is March 27, 2017

This workshop will take place at 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

Math Biology Workshop at Duke University

Applications of Mathematics to Physiology and Medicine: An Undergraduate Workshop at Duke University. The Department of Mathematics at Duke University will conduct an NSF-sponsored Summer Workshop on Applications of Mathematics to Physiology and Medicine, <u>May 21 to May 31, 2017</u>.

The program is intended for undergraduates interested in learning how mathematics can be used to understand biological systems. The workshop will consist of a series of lectures covering various topics in mathematical biology, such as physiology, cell biology, biofluid dynamics, gene networks, and neuroscience. Students will work closely with mentors on small research projects related to topics of their own choosing. Students will present the results of their projects to the group. The Department of Mathematics at Duke University will support travel, housing, and meals, for the selected student participants. All travel arrangements must be made by the Department of Mathematics. Women and other members of underrepresented groups are encouraged to apply.Workshop participants must be U.S. citizens or permanent residents and must currently be enrolled in a degree-granting undergraduate program. This program is not for Duke University undergraduates. Interested students must complete the online application form, where they must upload a copy of their current undergraduate transcript and specify a Reference Writer for one letter of reference from a faculty member at their institution. The letter may be uploaded on the website or may be sent by email to Michael Reed, <u>reed@math.duke.edu</u>. (MathPrograms will email the reference writer with instructions about how to upload their letter of recommendation.) Application materials must be received by <u>March 31, 2017</u>, in order to receive full consideration. However, we will have a rolling admissions process that will begin on February 1, 2017, so it is wise to apply early.

Website: https://www.mathprograms.org/db/programs/491

We will start considering applications on February 1, 2017, so apply early.

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research; computer laboratory training; projects; and clinical and translational research enrichment activities. Students will be matched with a Biostatistics faculty member for their research projects. The projects will give students exposure to research and opportunities to see medical science in action through biostatistics.

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For additional information and online application: http://www.public-health.uiowa.edu/isib/.

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

CENTER FOR INCLUSIVE EDUCATION

IRACDA PROGRAM

NEW YORK CONSORTIUM FOR THE ADVANCEMENT OF POSTDOCTORAL SCHOLARS (NY-CAPS)

The purpose of the IRACDA (Institutional Research and Academic Career Development Award) Program is to develop a diverse group of highly trained biomedical and behavioral scientists to address the nation's biomedical, behavioral and clinical research needs. The IRACDA NY-CAPS program combines a traditional mentored postdoctoral research experience with an opportunity to develop academic skills, including teaching, through workshops and mentored teaching assignments at a partner institution. The program is intended to facilitate the progress of postdoctoral candidates toward research and teaching careers in academia.



The IRACDA NY-CAPS Postdoctoral Fellowship Offers:

- Pedagogical training
- Salary with full fringe benefits
- Mentored postdoctoral research at Stony Brook University
- Three year postdoctoral appointment (renewable annually)
- Mentored teaching experience at institutions that serve underrepresented populations
- Membership in the national IRACDA Community with sponsored travel to annual meetings
- · Sponsored travel to scientific conferences

APPLICATION DEADLINE: March 10, 2017 Fellowships begin on or After May 1st

FOR DETAILS ABOUT ELIGIBILITY AND HOW TO APPLY, PLEASE VISIT OUR WEBSITE: <u>http://www.stonybrook.edu/iracda</u> or email us at: iracda@stonybrook.edu

Stony Brook University

THE BOSTON UNIVERSITY SUMMER INSTITUTE FOR BIOSTATISTICS

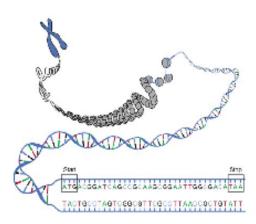
Attention all mathematics, statistics, and science students seeking a summer opportunity!

June 5th – July 14th 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

$$log(\frac{p}{1-p}) = e^{\beta_0 + \beta_1 \chi_1 + \beta_2 \chi_2}$$



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.



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 clinical 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 6th 2017 For more information and to apply online visit the website at http://sph.bu.edu/sibs



National Heart, Lung, and Blood Institute





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



Advancing Chicanos/Hispanics & 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@sacnas.org = http://sacnas.org/events/leadership Tel. 831-459-0170 ext. 238

