

Upcoming Events

Gulf States Alliance Conference

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

SIDIM

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

Fostering Diversity in Biostatistics

Washington, DC
March 12, 2017

MSRI Critical Issues in Mathematics Education

MSRI
March 15-17, 2017

SAMSI's Workshop

Research Triangle Park, NC
April 3-7, 2017

REU Reminder

If you are an undergraduate scholar looking for a summer research opportunity, now is the time to apply! Many REU programs have opened their applications process and their deadlines are in January and February.

Check out our webpage for a list of REU Opportunities.

University of Pennsylvania-Bridge to PhD Program

There is a new Master's degree program in mathematics at the University of Pennsylvania called *Bridge to PhD*. The goal of this program is to increase the number of PhD's awarded in mathematics at Penn to members of groups that are traditionally underrepresented.

This program is different than typical Master's programs as students will be fully funded and prepared for entry into our PhD program. Therefore, we are seeking students with the persistence and passion to pursue the training they need to be ready for a PhD in mathematics. *Bridge to PhD* will provide students with a nurturing atmosphere, close mentoring, and opportunities to perform high-level mathematics research.

For more details, see <http://bridge.math.upenn.edu>.

Philip Kutzko addresses MAA Minority Chairs Meeting 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 institution 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.

Iowa Summer Institute in Biostatistics

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

The [Iowa Summer Institute in Biostatistics](http://www.public-health.uiowa.edu/isib/) (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: <http://www.public-health.uiowa.edu/isib/>.



Join us for the 2017 Fostering Diversity in Biostatistics Workshop

The Eastern North American Region (ENAR) of the International Biometric Society will be hosting the 2017 Fostering Diversity in Biostatistics Workshop. The workshop will focus on connecting underrepresented minority students interested in biostatistics with professional statisticians in academia, government and industry.

Sunday, March 12, 2017
12:00-6:00pm
Washington Hilton
1919 Connecticut Ave NW
Washington, DC 20009



Keynote Speaker:
Dr. Melody Goodman
Assistant Professor, Dept. of Surgery
Washington University School of Medicine in St. Louis

The workshop will feature:

- Panel discussions between students and professionals focusing on career opportunities, mentoring, recruiting, and retaining students.
- Panel discussions between junior and senior students to discuss strategies for success in graduate programs.
- Small groups to facilitate networking and discussion among students and professionals.
- An interactive session among undergraduates and representatives from schools offering MS and PhD degrees in Biostatistics.

Register online at: <http://enar.org/meetings/diversity/index.cfm>

Lunch will be provided for all registered participants. Travel reimbursement is available. Registration is required for consideration.



2016 Workshop
Attendees

To learn more about the workshop, please contact:

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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.

SAMSI's Astrophysical Population Emulation and Uncertainty Quantification Workshop

Optimization: Astrophysical Population Emulation and Uncertainty Quantification Workshop, April 3-7, 2017

Apply for workshop: <http://samsi.us11.list-manage.com/track/click?u=f8d81ec133891cc606c5dc3af&id=a7e1cf9164&e=873e5bd3a2>

Application deadline: January 31, 2017

Location: in Research Triangle Park, NC.

Questions: email astro@samsi.info **Description:**

Inference problems on astrophysical populations arise in a large variety of fields, from exoplanets to gravitational-wave astrophysics to extragalactic astronomy. The application of hierarchical Bayesian modeling to observed astrophysical populations typically requires the generation of population models. Often, the full physical model is moderately to extremely computationally expensive. Therefore, there is a need to utilize fast emulators for much of the required computations. The workshop will provide opportunities to more efficiently review the previously done work, address any challenges, and discuss future directions.

This will be a very collaborative, hands-on workshop. As such, it will be scheduled predominantly around collaborative research sessions. The daily schedule will include a one-hour morning session presenting current project status, followed by intensive discussions and joint implementation work in smaller groups. The group will reconvene in the afternoon for a progress review meeting.

Workshop Organizers Ilya Mandel, University of Birmingham and Derek Bingham, Simon Fraser University

SAMSI Directorate Liaison: Sujit Ghosh

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,

Monday 6/26/2017 - Friday 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 <https://www.uab.edu/shp/home/energetics/courses/mathematical-sciences-shortcourse/fourth>.

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!

Summer Positions Available at BEAM

Bridge to Enter Advanced Mathematics: Summer Faculty Positions

This summer, change the lives of talented middle school students from underserved backgrounds: teach them what mathematics really is. Bridge to Enter Advanced Mathematics (BEAM), a project of the Art of Problem Solving Foundation, is seeking instructors for a program that gives everyone a chance to excel in mathematics. Faculty design and teach their own courses to bright, underserved middle school students. During summer 2017, we will run two programs, a residential program on college campuses in the Hudson Valley, and a day program in New York City.

Residential Program (BEAM 7):

Compensation: \$5,000 for four weeks (or \$3,300 for junior faculty such as graduate students or early-career teachers), plus room, board, and a transportation stipend.

Location: Bard College and a second campus TBD, both located about 2 hours out of NYC. Our students, all from high-poverty New York City public schools, will be discovering a new environment in these idyllic settings.

Dates: July 6 to August 2, 2017

Courses at BEAM 7 can be:

- **Pure math** such as number theory, combinatorics, graph theory, or logic;
- **Applied math** such as circuit design, programming, astrophysics, or genetics; or **Problem solving**, either Math Team Strategies or Solving Big Problems.

Non-residential Program:

Compensation: \$2,400-\$5,600 for six weeks depending on course load (part-time positions available).

Location: New York City

Dates: July 5 to August 15, 2017

BEAM 6 teachers receive outlines to help plan courses in **Logical Reasoning**, **Math Team Strategies**, **Math Fundamentals**, or **Applied Math**, and we are flexible for many different courses that meet our learning goals.

For both:

Ideal candidates include college or university professors (as well as graduate students) with strong teaching backgrounds, and middle or high school teachers with strong mathematics backgrounds. We've found that the community of teachers that we create, bringing together instructors from across many different academic areas, is one of the program's strengths and provides a great experience for all participants. Good candidates will work well on a close-knit team and will be able to bring unique curriculum perspectives to the program. Experience with other extracurricular outreach programs (such as math summer programs or math circles, MATHCOUNTS, programming workshops, or similar) are also a plus. We will provide mentorship, textbooks, and other resources as needed.

This is a unique opportunity to influence the lives of young students. Our students have tremendous potential and a strong ability for abstract reasoning, but because of their schools and backgrounds they often have not had the same training as more affluent peers. They are devoted, doing many hours of math each day (and loving it). We hope that you will join us (and them)!

For more information and the application, contact us at info@beammath.org or visit our website at www.beammath.org.

Counselor/Teaching Assistant

This summer, change the lives of talented middle school students from underserved backgrounds.

Bridge to Enter Advanced Mathematics (BEAM), a project of the Art of Problem Solving Foundation, is seeking undergraduate students or recent graduates to be counselors and teaching assistants for a summer program that gives everyone a chance to excel in mathematics. During summer 2017, we will run two programs, a residential program on college campuses in the Hudson Valley, and a day program in New York City.

At our residential program, counselors will live with the students in the campus dorms. At both programs, you'll create a vibrant social experience for kids who are discovering for the first time that there are other people who like doing mathematics; you'll also be a TA for classes on topics such as number theory, combinatorics, problem solving, and computer science. Be a role model and guide for students who are just beginning to set their educational path!

Counselors must be strong mathematically, be reliable, and take initiative. They should be charismatic and able to help the kids have fun. All counselors must be at least 18 years old by July 9, 2017.

Residential Program:

Compensation: \$2,600 for four weeks, plus room, board, and a transportation stipend.

Location: Bard College and a second campus TBD

Dates: July 6 to August 2, 2017

Non-residential Program:

Compensation: \$3,600 for six weeks, plus an unlimited MetroCard and breakfast/lunch on weekdays.

Location: New York City

Dates: July 5 to August 15, 2017

Deadline: rolling, but please apply by February 13, 2017 for full consideration. For more information and to apply:

<https://www.beammath.org/counselor-info/>

Tenure Track Faculty Opening at Penn State University

The Department of Mathematics is seeking exceptional applicants for one tenure or tenure-track faculty position specializing in big data research with mathematics background in one or more areas of high-dimensional geometry, algebraic geometry, algebraic topology, computational geometry, topological data analysis, representation theory and non-commutative harmonic analysis, homological algebra, randomized numerical linear algebra, recurrent neural networks, and multiple areas in machine learning including deep learning. A Ph.D. is required.

Applicants must complete the Penn State application at <https://psu.jobs/job/67556> and must submit an application through Mathjobs.org (<https://www.mathjobs.org/jobs>) with the following materials in order for the application to be complete: (1) at least three reference letters, one of which should address in detail the candidate's abilities as a teacher, (2) Curriculum Vitae, (3) Publication List, (4) Research Statement, and (5) Teaching Statement. We encourage applications from individuals of diverse backgrounds. Review of applications will begin January 15, 2017 and continue until the position is filled.

Grad Student Grant Opportunities with Social Security Administration

Sandell Grant Program-The Center for Retirement Research at Boston College sponsors the annual Steven H. Sandell Grant Program for scholars in the field of retirement income and policy research. The program is funded by the U.S. Social Security Administration to provide opportunities for junior scholars or senior scholars in a new area from all academic disciplines to pursue cutting-edge projects on retirement income issues.

- Up to five grants of \$45,000 will be awarded for one-year projects.
- Proposal guidelines are at <http://crr.bc.edu/about-us/grant-programs/steven-h-sandell-grant-program-2/>.
- The submission deadline is January 31, 2017.

Dissertation Fellowship Program- The Center for Retirement Research at Boston College sponsors the annual Dissertation Fellowship Program in the field of retirement income and policy research. The program is funded by the U.S. Social Security Administration to provide funding opportunities for doctoral candidates from all academic disciplines to pursue cutting-edge research on retirement income issues.

- Up to five fellowships of \$28,000 will be awarded.
- Proposal guidelines are at <http://crr.bc.edu/about-us/grant-programs/dissertation-fellowship-program-2/>.
- The submission deadline is January 31, 2017.

Research Projects on Determinants of Life Expectancy by Income and Geography, and Implications for Social Security Policy. The National Bureau for Economic Research (NBER), seeks applications for research projects that deepen our understanding of the mechanisms explaining geographic variation in the relationship between income and life expectancy in the United States, by using recently released statistics from the Health Inequality Project. In this call, with funding support from the Social Security Administration through the NBER Retirement Research Center, we encourage proposals that leverage the newly released data to better understand the reasons for the strong relationship between

income and life expectancy, its geographic variability, and its implications for interventions and policy.

- Faculty or faculty-student teams may request a total of up to \$25,000. Graduate students may request a total of up to \$12,500.
- Proposal guidelines and details are at <http://www.nber.org/programs/ag/funding.html>.
- The submission deadline is February 1, 2017.

Lecturer in Math Opening at University of Pittsburgh

The Department of Mathematics at University of Pittsburgh invites applications for two non-tenure stream Lecturers to begin in the Fall Term 2017, pending budgetary approval. The initial appointment is for 3 years and the positions are renewable. A Ph.D. in Mathematical Sciences or a closely related discipline is required. We seek excellence in teaching. For one of the positions, applicants with experience related to actuarial math are particularly encouraged to apply. Send a vita, three letters of recommendation, and a teaching portfolio including a statement of teaching philosophy, sample course syllabi and assignments, and evaluations of teaching by students or supervisors, electronically through www.mathjobs.org.

Review of completed files will begin on January 20, 2017 and continue until the positions are filled.

Assistant Professor openings at The Univ. of Texas at Arlington

The Department of Mathematics at The University of Texas at Arlington invites applications for two tenure-track Assistant Professor positions beginning September 1, 2017. Applicants should have significant research and scholarly accomplishments in one of the two following fields. The first field is big data, large scale computations and optimization. The second field is inverse problems with special interest in applications to medical imaging. Demonstrated excellence in research, effective teaching and a strong potential for external funding are essential. The salary will be competitive and commensurate with qualifications and experience. The minimum qualification is an earned Ph.D. in mathematics. At least two years of experience beyond the Ph.D. is preferable. Duties will include teaching and mentoring undergraduate and graduate students, doing scholarly research, writing grant proposals, interdepartmental collaboration, and department and university service. Successful candidates will be expected to have close collaborations with other faculty at UTA in the areas of data driven discovery and health and human conditions.

UT Arlington is a public Doctoral University with Highest Research Activity (R1) in the [Carnegie Classification of Institutions of Higher Education](#) and part of the University of Texas system with an enrollment of about 40,000 students. *The Department of Mathematics is the winner of the 2013 Award for Exemplary Program or Achievement in a Mathematics Department.* Serving more than 10,000 students every year, the department is a major center for mathematics research and education in the Dallas/Fort Worth Metroplex and north Texas. The department offers a variety of degree programs, including BA, BS, MA, MS, and PhD in Mathematics, Statistics and Mathematics Education. It currently has about 100 graduate students. As part of the university's College of Science, the department actively encourages interdisciplinary research efforts at the interface between mathematics, statistics, science, engineering and local industries. For more details, visit the Department's web page at <http://www.uta.edu/math> and the University's webpage <http://www.uta.edu>.

Applicants must submit electronically via <http://www.mathjobs.org> a letter of application plus a complete curriculum vitae, statement on research interests, statement of teaching philosophy that addresses evidence of teaching experience and effectiveness, and an American Mathematical Society (AMS) cover sheet. Applicants should arrange to have at least three letters of recommendation uploaded to <http://www.mathjobs.org>. At least one should address teaching. Inquiries about the position may be directed to mathsearch@uta.edu. Review of applications will begin on January 15, 2017, and will continue until the position is filled. Persons from groups historically underrepresented in Science, Technology, Engineering and Mathematics are encouraged to apply.

Position Openings at Wayne State University

The Department of Mathematics at Wayne State University invites applications for a tenure-track or tenured position at the Assistant Professor, Associate Professor, commencing in fall, 2017. The Department is primarily interested in hiring in algebra or analysis. Applications should include a detailed vita, description of current research interests, and four letters of recommendation, one of which should address teaching. Evidence of effective teaching at the undergraduate level is preferred to a statement of teaching philosophy. A Ph.D. in mathematics and a strong interest in research and teaching are required. Applications received by December 16, 2016 will be given priority. The position will be posted at <https://jobs.wayne.edu>. Applicants must apply online through this website.

For further information please consult the department's website, <http://www.math.wayne.edu>.

Two Assistant Professor (Research) positions for two academic years, beginning Fall 2017. A recent Ph.D. in mathematics or a related field is required. Applicants should have strong interests in both research and teaching and will be expected to teach three courses per academic year. Applicants should upload a signed, detailed vita, and description of current research interests to mathjobs.org, and also arrange for four letters of recommendation to be posted there. One of the letters should address teaching. The positions are posted at jobs.wayne.edu and applicants must also apply on this site. Preference will be given to applications received before Tuesday, January 17, 2017. For further information, please consult the department's website, clas.wayne.edu/math.

Wayne State University is a premier, public, urban research university located in the heart of Detroit where students from all backgrounds are offered a rich, high quality education. Our deep rooted commitment to excellence, collaboration, integrity, diversity and inclusion creates exceptional educational opportunities preparing students for success in a diverse, global society. WSU encourages applications from women, people of color and other underrepresented people. WSU is an affirmative action/equal opportunity employer.

Industrial Postdoctoral Fellowships at the IMA

The IMA has several openings for Industrial Postdoctoral Fellowships. The positions are intended for mathematical scientists at an early stage of their career. Preference will be given to those who have completed their Ph.D. within three years of the start of the appointment. Jointly funded by IMA industrial partners and the IMA, the fellowships begin August 30, 2017, and can be renewed for up to a total of two years. The postdocs will devote 50% effort to projects onsite at the IMA's partner company and 50% effort on their own research under the mentorship of a University of Minnesota faculty. The position carries an annual salary of \$65,000 and an allowance of up to \$3,000 for professional travel.

IMA Industrial Postdoctoral Fellowships are ideal for mathematical scientists who wish to pursue careers in industry or academic positions that involve industrial interactions. All industry projects involve data and their analysis. Previous data science experience is desirable but not required.

Required Qualifications:

- A Ph.D. in mathematics, applied mathematics, statistics, biostatistics, operations research or related areas by the start of the appointment.
- Strong programming skills -- proficiency in one or more programming languages, familiarity with a few others.
- Excellent interpersonal, presentation, and written skills The research statement you submit is an important part of the application. Your statement should not only outline your research interests and goals, but should also explain why the IMA Industrial Postdoctoral Fellowship would be an effective place for you to pursue these interests and goals.

Deadline: Consideration of applications will begin on January 19, 2017.

Website: <https://www.ima.umn.edu/postdocs/>

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