

## 2015 Field of Dreams Report

We are pleased to report that the Field of Dreams Conference was another success! The 2015 Field of Dreams Conference was held at the Sheraton Birmingham Hotel in Birmingham, Alabama. Over 325 participants, including 174 undergraduate students, 130 faculty, and many representatives from other math science organizations, were in attendance from over 115 universities, colleges, and organizations nationwide.

The conference kicked off on Friday afternoon with an interactive workshop on maximizing your opportunities at a conference. This workshop highlighted the importance of preparation, prioritization and networking during a conference to make sure you receive the greatest experience possible. Postdoctoral Fellows from three of the eight Math Sciences Institutes followed with informational presentations on their specific research area. A few new sessions were introduced this year including a Mentor Best Practices Seminar, a panel discussing the difference between the various mathematical disciplines, and a panel highlighting the value of an Undergraduate Research Experience. Friday festivities closed with an evening reception, poster presentations and the participation of 60 exhibitors during the Graduate/Career/Summer Programs Fair.

We were honored to have Dr. Michael Reed from Duke University to give the Math Science Talk Saturday morning entitled "How can mathematics contribute to precision medicine?" There was something for everyone on Saturday with panels ranging from "How to Succeed in a Doctoral Program" and "Careers in the Mathematical Sciences" for Alliance Scholars and panels discussing mentoring experiences, tips, and lessons for Alliance Mentors.



Our Keynote dinner speaker, Dr. Talithia Williams from Harvey Mudd College gave a brilliant presentation that held the attention of everyone present. Her talk entitled "Math with meaning: "Living your life with impact" moved the audience from tears to thunderous applause. We would like to thank everyone who helped prior and during the conference, and all our sponsors and panelist for making this conference our best one yet! Check out our [Flickr](#) site for plenty of photos from the 2015 Field of Dreams Conference.

Save the date for the 2016  
 Field of Dreams Conference!

November 4-6, 2016  
 St. Louis, MO



## Upcoming Events

**Workshop on Distributed Data Analysis with Applications in Finance and Healthcare**  
 March 21-22, 2016

**SAMSI Workshop for Women in Math Sciences**  
 Research Triangle Park, NC  
 April 6-8, 2016

**Challenges in Functional Connectivity Modeling & Analysis**  
 Research Triangle Park, NC  
 April 8-10, 2016

**Methodology for Precision Medicine: Integrating Statistical & Mathematical Approaches Workshop**  
 Research Triangle Park, NC  
 April 11-12, 2016

**Curves, Loops, and Words in Geometry**  
 Princeton, NJ  
 May 8-20, 2016

**SAMSI Games & Decisions in Reliability & Risk Workshop**  
 Research Triangle Park, NC  
 May 16-20, 2016

**Biology and Medicine Through Mathematics Conference**  
 Richmond, VA  
 May 20-22, 2016

**Interdisciplinary Workshop for Undergraduate Students**  
 Raleigh, NC  
 May 22-27, 2016

## Summer Research Experiences for Undergraduates

**Deadline- February 26, 2016**  
 Harvard School of Public Health- [Summer Program in Epidemiology](#)

**Deadline- March 1, 2016**  
 Harvey Mudd College [EDGE Program- EDGE: A Mathematics Program for Women](#)  
 Fresno State- [REU in Mathematics](#)

**Deadline- March 4, 2016**  
 University of Iowa Departments of Biostatistics & Statistics- [Iowa Summer Institute in Biostatistics](#)

**Deadline- March 15, 2016**  
 University of California, Merced- [Applied Research In Modeling and Data-Enabled Science \(ARCHIMEDES\)](#)  
 Kansas State University- [Summer Undergraduate Mathematics Research=SUMaR 2016](#)

**Deadline- March 25, 2016**  
 CSU, Pomona- [Preparing Undergraduates through Mentoring toward PhD's \(PUMP\)](#)  
 East Tennessee State University- [SMART In Math](#)  
 Texas State University- [Multidisciplinary Research Experiences for Undergraduates in Internet of Things](#)  
 University of Nevada, Reno- [RUSIS@UNR Summer 2016](#)

**Deadline- April 15, 2016**  
 The Ohio State University- [Sampling Advanced Mathematics for Minority Students \(SAMMS\)](#)

To see all our Alliance Affiliated REU opportunities please visit: <http://mathalliance.org/math-alliance-partners/affiliates/>

**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 PhDs 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 PhDs in postdoctoral, tenure track, and visiting positions. We particularly encourage applicants from under-represented groups (including women and minorities). More information can be found at [projectnext.maa.org](http://projectnext.maa.org).

## 2016 Spring Opportunities Workshop for Women in Math Sciences Held at SAMSI in Research Triangle Park, NC. April 6-8, 2016

The primary goals of the workshop is two-fold: (i) to familiarize women and/or under-represented minorities in the mathematical sciences with professional opportunities in academia, industry, and government, and (ii) to focus on challenges currently faced by women or minorities in mathematical sciences. Graduate students, postdoctoral fellows and junior researchers and professionals in mathematical sciences are encouraged to register for this event. The event will be limited to about 50 participants. So submit your applications early and definitely by the deadline. Most junior participants accepted for this workshop will receive partial funding for travel and accommodation. There is no registration fee. The application deadline is **February 22, 2016**. <http://www.samsi.info/women16>



## BAMM! Biology and Medicine through Mathematics May 20-22, 2016

This is a Biomath conference that will be held at Virginia Commonwealth University in Richmond, VA from Friday, May 20 to Sunday, May 22, 2016. The conference will consist of plenary talks, break-out sessions, and a poster session. We welcome participation from researchers at all academic levels working in mathematical biology. Funding from NSF, SMB and MBI has been secured for travel awards for junior researchers. To learn more about BAMM! visit <http://www.go.vcu.edu/bamm>

Abstract Submissions Deadline 3/1/2016. Registration Deadline 4/10/2016

## 2016 summer short courses at The University of Alabama at Birmingham

UAB's Nutrition Obesity Research Center invites you to join them at one or both of our five-day short courses

**June: The Mathematical Sciences in Obesity Research-** 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.

**July: Strengthening Causal Inference in Behavioral Obesity Research-** Identifying causal relations among variables is fundamental to science. Obesity is a major problem for which much progress in understanding, treatment, and prevention remains to be made. Understanding which social and behavioral factors cause variations in adiposity and which other factors cause variations is vital to producing, evaluating, and selecting intervention and prevention strategies. In addition, developing a greater understanding of obesity's causes, requires input from diverse disciplines including statistics, economics, psychology, epidemiology, mathematics, philosophy, and in some cases behavioral or statistical genetics. However, applying techniques from these disciplines does not involve routine well-known 'cookbook' approaches but requires an understanding of the underlying principles, so the investigator can tailor approaches to specific and varying situations.

For full details of each of the courses, please refer to our websites below:

**Mon 6/13/2016 - Fri 6/17/2016: The Mathematical Sciences in Obesity**, <http://www.soph.uab.edu/energetics/shortcourse/third>.

**Mon 7/25/2016 - Fri 7/29/2016: Strengthening Causal Inference in Behavioral Obesity Research**,  
[http://www.soph.uab.edu/energetics/causal\\_inference\\_shortcourse/second](http://www.soph.uab.edu/energetics/causal_inference_shortcourse/second).



# Job Opportunities

## Program Manager Opening for The National Alliance for Doctoral Studies in the Mathematical Sciences



As the program makes a move to Purdue University, Billie Townsend's role of Alliance Program Manager will need to be filled! This position will provide leadership, oversight, and operational management for the programs of the National Alliance for Doctoral Studies in the Mathematical Sciences. [Click here to view the official job posting and apply online.](#)



Summer 2016  
Position  
Opportunities



### Bridge to Enter Advanced Mathematics: Summer Faculty Positions

This summer, change the lives of talented 7th-grade 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. 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, Bootstrap, or similar) are also a plus. We will provide mentorship, textbooks, and other resources as needed. The program will take place at two sites, Bard College and a second site TBD, both located about 2-3 hours outside New York City. Our students, all from high-poverty New York City public schools, will be discovering a new environment in these idyllic settings.

All instructors must be available July 6 through August 3 and must be available to prepare their classes prior to the program. The salary is \$5000 for faculty, and \$3300 for junior faculty who are graduate students or early-career teachers. In addition, food, housing, and transportation are all provided. For more information and the application, contact us at [info@beammath.org](mailto:info@beammath.org) or visit our website at [www.beammath.org](http://www.beammath.org).

### Bridge to Enter Advanced Mathematics: Summer Counselor/TA Positions

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 TAs for summer programs that give everyone a chance to excel in mathematics. You may work at one of our residential programs (with housing and transportation provided) or our new non-residential program in New York City.

We're looking for counselors who have a lot of initiative and maturity, who will inspire the students to do better, and who are good at math. The camp's academics will be challenging to everyone, with courses on topics such as combinatorics, number theory, problem solving, graph theory, game theory, and more, so you'll get plenty of chance to stretch your mathematical muscles. (You do not need to know these specific topics to apply.) All counselors must be available for July 6 through August 3 (the residential program) or July 8 through August 6 (the non-residential program). You will have a chance to take time off, but this is a very intense experience and you should be prepared for it! The residential program will take place at two sites, Bard College and a second site TBD, both located about 2-3 hours outside New York City. Food, housing, and transportation are provided. The non-residential program takes place in New York City, and provides breakfast and lunch. Salaries range from \$2600-\$3000 for first-time counselors. For more information and the application, contact us at [info@beammath.org](mailto:info@beammath.org) or visit our website at [www.beammath.org](http://www.beammath.org).

The University of Texas Rio Grande Valley has just opened four tenure-track faculty positions: two in statistics, one in math education and one in applied mathematics. Please see the links to the announcements below.

**Assistant Professor in the College of Sciences / Statistics**

<https://careers.utrgv.edu/postings/10262>

**Assistant Professor of Applied Mathematics**

<https://careers.utrgv.edu/postings/10302>

**Open Rank in Mathematics Education (Assistant, Associate, or Full Professor)**

<https://careers.utrgv.edu/postings/10261>

**Assistant Professor of Computational Mathematics with Statistics**

<https://careers.utrgv.edu/postings/10179>

For these positions, priority will be given to outstanding candidates with a research agenda in related areas (please see the individual announcements for these details). The appointment involves teaching at the undergraduate and graduate levels including the supervision of undergraduate research projects and Master's theses. Applicants with experience teaching a diverse student body are preferred as is the ability to use technology and innovative teaching methods to support students' learning.

The school has an active research program in statistics, pure mathematics, applied mathematics, and mathematics education with over 40 faculty members and over 300 undergraduate majors. The school has a B.S. program in Mathematics with concentrations in Applied Mathematics, Pure Mathematics, Economics, Science and Engineering, Statistics, Middle School and Secondary School, along with a UTeach program and a growing Master's program with four concentrations in Applied Mathematics, Pure Mathematics, Mathematics Teaching and Statistics.

To learn more about the UTRGV mathematics department [click here](#).

Applications are invited for Continuing Lecturers in Mathematics. Candidates must have an M.S. in mathematics education, or a B.S. in mathematics plus mathematics teaching experience at the high school or university level. Two years experience in mathematics teaching at the junior college or university level desired.

**Duties:** Teach courses in mathematics for elementary education majors. Topics include numerical reasoning, geometry, algebra, basic probability, and systems of linear equations. Train and supervise graduate teaching assistants for these courses. Work with faculty, staff, and graduate students in coordinating courses, carrying out instructional goals, placement, and testing. Opportunity for summer teaching. Start date is August 2016. Starting salary in the \$45,000 to \$55,000 range, commensurate with experience.

Applications should include a resume with a list of references and should be sent to [mathhead@purdue.edu](mailto:mathhead@purdue.edu). Additionally, a cover letter describing your experience with elementary education students, K-12 education, and a diverse student body is preferred. For further information, please contact [mathhead@purdue.edu](mailto:mathhead@purdue.edu). Applications are considered on a continuing basis but candidates are urged to apply by March 1, 2016. A background check will be required for employment in these positions. Purdue University is a dual career friendly employer.