

## Upcoming Events

**UMaRch Puerto Rico 2015**University of Puerto Rico, Mayaguez  
February 27, 2015**Interuniversity Seminar on  
Research in the Mathematical  
Sciences (SIDIM)**University of Puerto Rico, Mayaguez  
February 27-28, 2015**SAMSI Undergraduate Workshop**Research Triangle Park  
February 26-27, 2015**Infinite Possibilities Conference**Oregon State University  
March 1-3, 2015**Statistical Modeling & Analysis of  
Whole Genome Methylation &  
Chromatin Interaction Workshop**Research Triangle Park  
March 9-10, 2015**Bioinformatics: Discovering  
Patterns in Human Microbiome  
Data (HMD)**Research Triangle Park  
March 16-18, 2015**Annual Outreach Conference to Increase  
Diversity in Mathematical Modeling &  
Public Health**Harvard School of Public Health  
March 29-30, 2015**Latina/os in the Mathematical  
Sciences Conference**UCLA  
April 9-11, 2015**Graduate Workshop on Current  
Issues in Statistical Ecology**University of Tennessee, Knoxville  
April 15-17, 2015**SAMSI Undergraduate Modeling  
Workshop**North Carolina State University  
May 17-22, 2015**Research Experiences for  
Undergraduate Faculty (REUF)**Providence, RI  
July 20-24, 2015**2015 Field of Dreams Conference**Birmingham, AL  
November 6-8, 2015

## Facilitated Graduate Applications Process (FGAP)

**What is F-GAP?**

The Facilitated Graduate Applications Process (F-GAP) is an Alliance program that provides graduating Alliance seniors and master's students with advice and assistance as they apply to graduate programs. It will help you choose departments that are most appropriate to your goals and aspirations. The Alliance Community will work with you as you prepare your applications and will assist in tracking the progress of your applications through the admissions process. We will assist in maximizing the chances that you will be admitted, with support, to a department or program where you will thrive.

**Student Nomination Process**

To be eligible a student must be an Alliance Scholar, a graduating senior or Master's student looking to apply to graduate programs, and be nominated by their Alliance Predoctoral Mentor. After a student is nominated by their Predoctoral Mentor, Alliance Staff will contact the nominated students to make sure they are interested in participating in the F-GAP program.

**How F-GAP works**

Graduating seniors or Master's students that have been nominated by a mentor will be paired with a Faculty Facilitator from among our Alliance Doctoral Faculty. Students will prepare their graduate applications materials and first send them to their Alliance Predoctoral Mentor for review, followed by their F-GAP Facilitator.

Your F-GAP Facilitator will read over your draft personal statement and résumé and suggest ways to improve it (this may take several revisions). They will review your transcript to see what courses you have taken and possibly make suggestions of courses you may need to take during your last year. They will look over your references to see if they are appropriate. They will look over your GRE scores and based on the minimal scores that are accepted at their university may make suggestions on possible retakes.

The student, the Predoctoral Mentor, and the F-GAP Facilitator will have a discussion by email, Skype, or phone to suggest which graduate programs will be best for you. Once the personal statement, résumé, and reference list are complete you should apply to at least three graduate programs. If you are applying to a program in an Alliance Graduate Program Group (GPGs) please contact them for information about receiving an application fee waiver prior to submitting your application. A complete list of Alliance GPGs, their minimal requirements, and their contact information can be found on the [Alliance webpage](#). All students applying through the Facilitated Graduate Applications Process are encouraged to give their permission to share their information with the mentors in the 34 Alliance Graduate Program Groups (GPGs).

After applying to various graduate programs we request that you send a complete list of those programs to the Alliance Staff. We will contact faculty at the Alliance GPG programs you have applied to and let them know that you have applied. We will track your application at each of the Alliance GPG programs and make sure that your application is given careful consideration. Please let us know when you have made your final Graduate Program selection.



The 2014 Facilitated Graduate Applications Process (FGAP) currently has 127 enrolled Alliance Scholars. These scholars are currently in the process of applying, interviewing, and selecting graduate programs. This year's group of F-GAP scholars have applied to over 130 different programs collectively. We are tracking this group closely and are excited to report final success numbers this Spring.

# MATH STORIES: WHEN ALLIANCE STUDENTS CHOSE TO ENTER MATH

The data expressed in this infographic comes from the answers provided by the 88 individuals who took the online survey distributed by the Math Alliance Research Study in the Fall of 2013 and responded to the question "When did you decide you wanted to pursue a degree in the mathematical sciences?" Responses fell into two categories: a specific point in schooling timeline and other influences.

## TIME SPECIFIED

BEFORE HIGH SCHOOL

6%

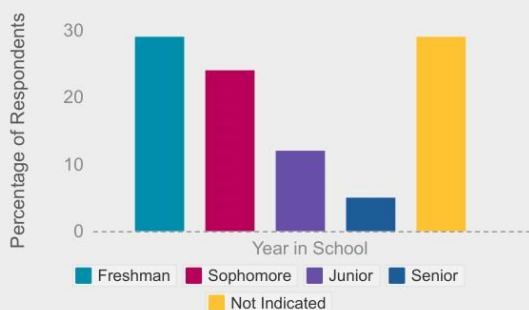
"I have always known since I was a little girl that I wanted to be a scientist."

"I remember making this decision when I started learning about polynomial functions in middle school."

HIGH SCHOOL

27%

"In high school, I took AP Calculus, and it was there that I found something that would eventually be my niche."



When Decided in Undergraduate

UNDERGRADUATE

49%

"I decided freshman year of college when I realized that as an engineering major, I had completed all my required math courses and realized that I had the most fun when I attended those courses."

"At the beginning of my third year, I realized I was passionate about mathematics and decided to make a change and focus on this field."

## OTHER INFLUENCES

CONFERENCE

2%

"First time I attended the Field of Dreams Conference."

PROCESS

2%

"I decided after graduating from a community college and being out of school for a year."

OTHER

13% "For me, the decision to pursue a math degree came gradually..."

"In my last year of high school I learned about applied math and how it relates to different disciplines. This was something that really caught my attention and after learning more about the program as an undeclared student at my university, I decided to chose applied mathematical sciences during my sophomore year."

January 2015

Created by Lisa Skultety, University of Illinois at Urbana-Champaign

If you have any questions or comments, please contact the Math Alliance Research Team at the University of Illinois at Urbana-Champaign at [stem@education.illinois.edu](mailto:stem@education.illinois.edu). This material is based upon work supported by the National Science Foundation under Grant No. 1242941 to the University of Illinois at Urbana-Champaign. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.



## Launch the NExT stage of your career!

**Project NExT** (New Experiences in Teaching) is a year-long professional development program of the *Mathematical Association of America* 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 and undergraduate research program, and
- preparing for tenure



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.

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 2015 cohort of Project NExT Fellows are due on **April 15, 2015** and can be found at [projectnext.maa.org](http://projectnext.maa.org).

**Questions? Contact [projectnext@maa.org](mailto:projectnext@maa.org)**

## Methods in Computational Neuroscience Course— Marine Biology Laboratory in Woods Hole, MA

Applications are open for the Methods in Computational Neuroscience course at the Marine Biology Laboratory in Woods Hole, MA. The course will run from July 29 to August 26, 2015, and the online application form can be found at: <http://ws2.mbl.edu/studentapp/studentapp.asp?CourseID=MCN>. **The course application deadline is March 5.**

The course covers a range of topics in computational neuroscience including neuronal biophysics, neural coding & information processing, circuit dynamics, learning & memory, motor control, and cognitive processing & disease. In addition, numerous tutorials and problem sets will cover a broad range of computational and mathematical modeling methods. The course strongly emphasizes the collaboration between theory and experiment in solving neuroscience problems, and lectures will be given by a mixture of theorists and experimentalists. The final weeks of the course are primarily reserved for development and work on projects that students design in collaboration with the resident faculty. Further information can be found on the MCN website: <http://www.mbl.edu/mcn/>

## Research Experiences for Undergraduate Faculty (REUF) Workshop July 20-24, Providence, RI



Research Experiences for Undergraduate Faculty (REUF) encourages and supports involvement in research with undergraduates by faculty at colleges and universities that emphasize undergraduate education. Each annual cycle includes a week-long REUF workshop during the summer and additional activities for participants afterwards to support continuation of research engagement sparked by the workshop. In addition, participants become members of the long-term REUF community. The REUF program actively recruits faculty from colleges and universities that serve large numbers of underrepresented minority students, students with disabilities, and/or first generation college students, as well as faculty who are members of underrepresented minorities. **Applications are now open** for REUF 2015, which will take place July 20 to 24 at ICERM in Providence, Rhode Island. More information can be found at <http://reuf.aimath.org/>.

# Post-Doctoral Fellowship in Obesity Research



The Nutrition Obesity Research Center (NORC) at the University of Alabama at Birmingham announces the availability of post-doctoral fellowships funded through the NIH T32 grant (T32DK062710-01A1) awarded to Dr. David Allison by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). The funds from this grant may be used only for US Citizens or permanent residents. In very rare cases we are able to identify additional funds for the exceptional applicant who is neither a US Citizen or permanent resident, but this is a rarity. The purpose of the Training Program is to offer fellowships that prepare post-doctoral scientists for scientific careers as independent investigators in obesity-related research. [For more information click here!](#)

**THE WORLD**  
needs science, and science  
**NEEDS WOMEN.**

You could be awarded \$60,000  
for research in a STEM field.

**APPLY NOW**  
[L'OréalUSA.com/forwomeninscience](http://LorealUSA.com/forwomeninscience)

for Women in Science

The advertisement features a blue silhouette of a woman's head in profile, facing right, set against a background of colorful molecular structures and network diagrams. The text is in various shades of blue and white.

L'Oréal's For Women in Science program has recognized more than 2,000 women scientist in over 100 countries since the program began in 1998. We're looking for five exceptional female scientists in the United States to be role models for the next generation and to help encourage girls to pursue careers in science.

Candidates must have a conferred PhD and have started postdoctoral research by July 1, 2015. Must be a U.S. citizen or permanent resident to apply. Applications due March 20, 2015.

More information & application at: [L'OréalUSA.com/forwomeninscience](http://L'OréalUSA.com/forwomeninscience)

## *Summer Programs for Undergraduates*

### Deadline– February 15, 2015

Grand Valley State University Department of Mathematics- [The REU Program in Mathematics](#)

Mathematical Sciences Research Institute (MSRI)- [MSRI-UP Summer Program](#)

North Carolina State University Department of Mathematics- [REU in Modeling and Industrial Applied Mathematics](#)

North Carolina State University Department of Mathematics- [REU+ program for under-represented undergraduate students](#)

Washington University in St. Louis- [Joint Post-baccalaureate Program](#)

### Deadline– February 23, 2015

Valparaiso University- [The Valparaiso Experience in Research by Undergraduate Mathematicians \(VERUM\)](#)

### Deadline– February 28, 2015

Iowa State University Department of Mathematics- [Mathematics Research Experiences for Undergraduates](#)

### Deadline– March 1, 2015

Boise State University– [REU Program in Mathematics](#)

Harvard School of Public Health- [Summer Program in Epidemiology](#)

University of Iowa Departments of Biostatistics and Statistics- [Iowa Summer Institute in Biostatistics \(ISIB\)](#)

### Deadline March 2, 2015

Mathematical Biosciences Institute (MBI)- [Undergraduate Summer Research Program](#)

Harvey Mudd College EDGE Program- [EDGE: A Mathematics Program for Women](#)

Texas State University- [Multidisciplinary Research Experiences for Undergraduates in Internet of Things](#)

### Deadline– March 6, 2015

North Carolina State University Department of Mathematics- [Summer Institute for Training in Biostatistics](#)

### Deadline– March 15, 2015

University of California, Merced- [Applied ResearCH In ModEling and Data-Enabled Science \(ARCHIMEDES\)](#)

University of Nebraska at Lincoln Department of Mathematics- [Nebraska IMMERSE \(Intensive Mathematics: a Mentoring, Education and Research Summer Experience](#)

### Deadline—March 23, 2015

California State Polytechnic University, Pomona—[California State Polytechnic University, Pomona \(PUMP\)](#)