MATH ALLIANCE
Building a New American Community in the Mathematical and Statistical Sciences

Math Alliance News

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Research Experience for Undergraduates (REU)

Every summer, hundreds of students from across the country participate in mathematics Research Experiences for Undergraduates (REUs) and similar programs. The benefits of participating in an REU are numerous. First and foremost, students have the opportunity to work closely with peers and faculty conducting original research in mathematics. In doing so, they develop a better understanding of what it means to do mathematics and to be a mathematician. REUs often provide students the opportunity to develop their written and oral communication skills by writing about and presenting their work to various audiences. In addition, REUs allow students to build lasting professional relationships—and many times friendships—with students and faculty outside their home institutions.

Many students who participate in REUs go on to graduate school and consider their REU experiences to be an invaluable part of their preparation for advanced study in mathematics. As an example, here are just a few comments from past participants in REUs:

- "The program helped me develop mathematical writing and speaking skills that I have found useful, especially now that I am in graduate school."
- "This summer definitely helped me make some decisions about my future. I am now more motivated and have determined that I would like to go to graduate school and possibly on to a doctorate. I would then be the first in my family, and I feel like this goal is more achievable than I had viewed it in the past."
- "My REU gave me a much better appreciation of how different parts of mathematics connect, as well as insight into the excitement of delving into a topic."

Many REU application deadlines are in early/mid February so now is the time to apply for a summer program!

1. A list of some REU programs that are affiliated with the Math Alliance can be found on our website by **clicking here**.
2. A pdf file of some REUs and their prerequisites for application can be **found here**.
3. We have also included a listing with application deadlines below.

Summer Programs for Undergraduates

Deadline– January 31, 2016
Arizona State University Department of Mathematics- Mathematical and Theoretical Biology Summer Program
Mathematical Biosciences Institute (MBI)- Undergraduate Summer Research Program

Deadline– February 1, 2016
Harvard School of Public Health- Summer Program in Quantitative Sciences
The Leadership Alliance- Summer Research- Early Identification Program (SR-EIP)
Universidad de los Andes- IRES Project: Population Dynamics and Complex Systems

Deadline– February 11, 2016
Williams College Department of Mathematics- SMALL Undergraduate Research Project

Deadline– February 15, 2016
Brown University- SUMMER@ICERM Computational Dynamics and Topology
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

Deadline– February 19, 2016
Grand Valley State University Department of Mathematics- The REU Program in Mathematics

Deadline– February 22, 2016
Valparaiso University- The Valparaiso Experience in Research by Undergraduate Mathematicians (VERUM)

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 and Statistics- Iowa Summer Institute in Biostatistics (ISIB)

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
California State Polytechnic University, Pomona- Preparing Undergraduates through Mentoring toward PhD's (PUMP)
Texas State University- Multidisciplinary Research Experiences for Undergraduates in Internet of Things

ASU Arizona State University — Mathematical and Theoretical Biology Summer Program, *June 8 - July 30*

This intensive eight-week summer research experience for undergraduates in Tempe, Arizona prepares promising young scientists interested in working at the interface of mathematics, statistics and the natural and social sciences for the rigors of graduate studies. MTBI is a research experience for undergraduates (REU); it is not an internship, nor will students earn college credit for participation. Participants receive intensive instruction in dynamical systems, stochastic processes, computational methods and modeling delivered by top scientists and special guest lecturers and colloquia speakers. **Click here to learn more and apply.**

Kansas State University

Summer Undergraduate Mathematics Research=SUMaR 2016

During eight weeks, 12 undergraduate students will have the opportunity to visit K-State and carry out research projects under the mentorship of the mathematics department's faculty. This REU encourages **applications** from students preparing for graduate studies in mathematics, and those from community colleges who might otherwise not have an opportunity to experience mathematics work and consider graduate studies. **Click here to learn more about the SUMaR program and apply.**

The Leadership Alliance- Summer Research- Early Identification Program (SR-EIP)

Since 1992, the Leadership Alliance has encouraged students from groups traditionally underrepresented in the sciences, engineering, social sciences and humanities to pursue research careers in the academic, public and private sectors. **SR-EIP** provides undergraduates with training and mentoring in the principles underlying the conduct of research and prepares them to pursue competitive applications to graduate schools. **SR-EIP** is a gateway to ongoing resources, mentoring and professional networks to support all participants along their chosen career path. **SR-EIP** is a rigorous research experience designed specifically for undergraduates interested in applying to PhD or MD-PhD programs. **Click here to learn more & apply.**

Duke University Marine Laboratory

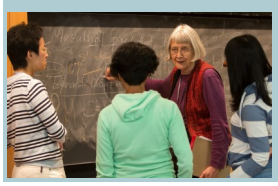
Duke | Nicholas School of the Environment

Marine Science and Conservation Scholarship Program
Fall 2016 (August 29- December 16**,** 2016)
Deadline: 25 February 2016

The Duke University Marine Lab is pleased to offer scholarships for two non-Duke undergraduates covering tuition & fees, room & board, books, travel to Beaufort, and full support for participation in a Beaufort Signature travel course to Panama during a semester of study, Fall 2016 in Beaufort North Carolina. Undergraduate fellows will enroll in Duke courses taught in Beaufort, where there is emphasis on the biology and physiology of marine organisms, marine molecular biology, marine policy, and coastal socio-ecological issues. Announcement of awards will be made no later than 15 March 2016. **Click here to learn more and apply.**

Curves, Loops, and Words in Geometry–

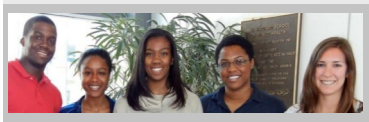
A program of the Institute for Advanced Study and Princeton University
May 9-20, 2016



Since 1994 with the support of the National Science Foundation, the Institute, together with Princeton University, has hosted an intensive 11-day mentoring program for undergraduate and graduate women in mathematics. The program brings together research mathematicians with undergraduate and graduate students on the campus of the Institute for Advanced Study and is designed to address issues of gender imbalance in mathematics. Activities include lectures and seminars on a focused mathematical topic, mentoring, discussions on peer relations, an introduction to career opportunities and a women in sciences seminar. **Click here to learn more.**

HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH

2016 Summer Program in Biostatistics & Computational Biology at the Harvard T.H. Chan School of Public Health



If you like mathematics and would like to learn how quantitative methods can be applied in the study of human health, consider applying to the Summer Program in Biostatistics & Computational Biology at the Harvard T.H. Chan School of Public Health. The program will introduce you to the power and excitement of math applications to public health, medicine, and biology, and provide you experiences that will help inform your future career path. The Summer Program is a relatively intensive 6-week program, during which qualified participants receive an interesting and enjoyable introduction to biostatistics, epidemiology and public health research. This program is designed to expose undergraduates to the use of quantitative methods for biological, environmental and medical research. **Click here to learn more!**

Mathematical Biosciences Institute Undergraduate Summer Research Program

mbi Mathematical Biosciences Institute

The goal of this MBI NSF-funded program is to introduce students to exciting new areas of mathematical biology, to involve them in collaborative research with their peers and faculty mentors, and to increase their interest in mathematical biology. The program consists of three parts - each including a mix of educational and social experiences:

- One-week introduction (June 6-10, 2016): A one-week introduction to the summer research experience with tutorials, lab tours, and computer labs on mathematical biosciences topics.
- REU Program (June 13 - August 5, 2016): An 8 week individualized research experience as part of a research team at one of the participating host institutions preceded by a one-week introduction at the MBI.
- Capstone Conference (August 8-12, 2016): A student centered conference featuring talks and posters by students doing research in mathematical biology, keynotes by prominent mathematical biologists, a graduate studies recruitment fair, and other special features including a conference dinner and social event.

Click here to learn more and apply.

Iowa Summer Institute in Biostatistics

THE UNIVERSITY OF IOWA

University of Iowa College of Public Health
June 4 – July 22, 2016

The Iowa Summer Institute in Biostatistics (ISIB) objective is to provide biostatistical training and applied research opportunities to undergraduates. The 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 as 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/.

International Research Experience (IRES) Project: Population Dynamics and Complex Systems

Universidad de los Andes
ASU

Applications are open for the second year of the International Research Experience (IRES) in Population Dynamics and Complex Systems! Selected participants will travel to Bogota, Colombia to conduct individual research projects with a group of faculty at Universidad de los Andes (UniAndes), led by Professor Juan Cordovez, the Director of the Research Group in Mathematical and Computational Biology (BIOMAC). Participants will have the opportunity to work in the challenging environment that researchers living in a developing country face every day, in a corner of the world embedded in one of the highest diversity of species regions.

Sample specific projects include: Measuring the impact of health campaigns through mobile media; Environmental stochasticity in matrix population models; Models and analysis of dengue epidemics; Chagas in sylvatic communities; Diffusion in fractal media; Biomathematical models with fractals; Modeling the interaction between symbiotic and pathogenic microbees in the gut; Understanding the double peak of influenza virus shedding in mammals; and Genomics and Personalized medicine. **Click here to apply.**

Career Opportunity:
The University of Texas at Arlington

The Department of Mathematics at The University of Texas at Arlington invites applications for two or three tenure-track Assistant Professor positions beginning September 1, 2016 subject to available funding. Tenured appointments at the rank of Associate or Full Professor may be considered for exceptional candidates with a strong record of research and external funding. While outstanding applicants from all mathematical research areas will be considered, for two positions strong preference will be given to those with significant research and scholarly accomplishments in statistics and data science, especially in interdisciplinary areas such as biostatistics, data-driven discovery in the life and physical sciences, and other applications to human health. Demonstrated excellence in research and teaching and a strong potential for external funding are essential. The salary will be competitive and commensurate with qualifications and experience. The minimum qualifications are an earned Ph.D. in mathematics, statistics, or a related field. 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.

UT Arlington is a public Comprehensive Doctoral/High Research Activity institution and part of the University of Texas system with an enrollment of over 37,000 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 s in Mathematics, Statistics and Mathematics Education. It currently has more than 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. Inquiries about the position may be directed to mathsearch@uta.edu. Review of applications will begin on January 15, 2016, and will continue until the position is filled. Persons from groups historically underrepresented in Science, Technology, Engineering and Mathematics are encouraged to apply. A criminal background check will be conducted on finalists. For more information see http://www.uta.edu/hr/eos.

As an equal employment opportunity and affirmative action employer, it is the policy of The University of Texas at Arlington to promote and ensure equal employment opportunity for all individuals without regard to race, color, religion, sex, national origin, age, sexual orientation, gender identity, disability, or veteran status.

Career Opportunity: Spelman College

Spelman College seeks teacher/scholars dedicated to excellence in teaching and to the continued enhancement of the academic environment for students and colleagues. Founded in 1881, Spelman College is a private four-year liberal arts college located in Atlanta, GA. The oldest historically Black college for women in the United States, Spelman is a member of the Atlanta University Center Consortium and Atlanta Regional Consortium for Higher Education. All tenure-track candidates are expected to have a demonstrated interest in liberal arts and sciences education, contribute effectively to undergraduate teaching, assist in curriculum development, provide service to the department and College, as well as be active in scholarly, creative, and/or research productivity appropriate to a liberal arts environment.

The **Department of Mathematics** invites applications for a **tenure- track position at the Assistant Professor** level, with a specialization in **Statistics**, beginning August 2016, job code TF0701. This appointment requires teaching, engaging in scholarly research activities, mentoring, and directing undergraduate research. The ideal candidate should be able to teach Probability and Statistics, and Biostatistics, as well as a broad range of courses offered in the department.

JOB REQUIREMENTS:
Qualifications: Ph.D. in Mathematics with a concentration in Statistics, or a Ph.D. in Statistics.
Review of applications will begin on January 14, 2016 and will continue until the position is filled.
Competitive salary and an excellent benefits program are available. To apply for this position, please upload: a letter of interest, including job code, which identifies the position sought; curriculum vitae (with contact information); a one-page statement of teaching philosophy; statement of scholarly, creative or research interests. Excellence in teaching, research and/or scholarly or creative production, and service are required. Copies of official undergraduate and graduate transcripts are required. Names and email addresses of three referees should be provided. Address questions to: provostoffice@spelman.edu. Copy and paste the link address below into your browser to submit and electronic application with required attachments:
https://app.smartsheet.com/b/form?EQBCT=53e12ea61d7b4fd7a0839592c0e90603