# Math Alliance News

Thank you to everyone who attended the 2015 Field of Dreams Conference! It was great to see so many Alliance Scholars and Faculty come together for an excellent weekend of events. We are working to compile a report of the conference events that we will share with you soon! If you have any photos you would like to share with us please send them to miles-dietz@uiowa.edu.

We will be having two issues of the Alliance newsletter this month. Below is the first installment which includes listings for many workshops, REUs, and career opportunities. Please share these with anyone you think may be interested. A second issue will follow detailing the 2015 Field of Dreams Conference with plenty of photos!

**Summer Program in Biostatistics & Computational Biology at the Harvard T.H. Chan School of Public Health**
June 12, 2016 - July 23, 2016
Application Due: February 1, 2016
Eligibility & Requirements

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.

**Summer Program for Undergraduates & Recent Graduates**
The Summer Program is an intensive 6-week program, during which qualified participants receive a whirlwind 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. The program also provides advice about graduate school and the application process through GRE preparation, meetings with different departments of the Harvard T.H. Chan School of Public Health, and individualized mentoring by Harvard faculty. Participants take non-credit introductory courses in Biostatistics and Epidemiology and statistical programming languages such as R and STATA (a statistical program), and attend a series of afternoon topical seminars. The seminars, led by faculty members from various departments at the Harvard School of Public Health, are designed to broaden participant's understanding of the relationship of biostatistics to human health by providing a snapshot of methods developed and applied to real research projects in different fields. Participants also gain research experience through small-group research projects directed by faculty and graduate student mentors. At the end of the program, students present their research to the group and to affiliated faculty. Housing and travel are provided and a living stipend of approximately $1500/month is provided for the 6-week program.

**Post-Baccalaureate Internship**
The 3-month internship program is for post-bacs interested in or planning to attend a graduate degree program in biostatistics. Past summer program participants are encouraged to apply. Travel is provided and interns will receive a salary for their participation in the post-baccalaureate program.

Interns will participate in collaborative research projects through three, one-month long rotations at academic and clinical centers at Harvard. They will attend regular seminars at Harvard and Dana Farber Cancer Institute on biostatistical topics. They will also attend the annual Pipelines Into Biostatistics Symposium in July 2016 and return the next summer to present their research at our 2017 Annual Symposium.

## Energy Sciences Research Summer Internship for Undergraduates

**Undergraduate Summer Internship.** The Nebraska Center for Energy Sciences Research (NCESR) is taking applications for the *Energy Sciences Research – Summer Internship for Undergraduates*. It is made possible through NCESR with support from the Nebraska Public Power District (NPPD), which provides electricity service in all or parts of 91 of Nebraska's 93 counties. **Questions.** For questions, contact Lorraine Moon, NCESR Office Associate at lmoon1@unl.edu.

# Mathematical Sciences Research Institute
# Berkeley, CA

MSRI invites applications for 40 Research Professors, 200 Research Members, and 30 semester-long Post-Doctoral Fellows in the following programs: **Geometric Group Theory** (August 15- December 16, 2016), **Analytic Number Theory** (January 17 - May 26, 2017), and **Harmonic Analysis** (January 17 - May 26, 2017). Research Professorships are intended for senior researchers who will be making key contributions to a program, including the mentoring of postdoctoral fellows, and who will be in residence for three or more months. Research Memberships are intended for researchers who will be making contributions to a program and who will be in residence for one or more months. Post-Doctoral Fellowships are intended for recent PhDs. Interested individuals should carefully describe the purpose of their proposed visit, and indicate why a residency at MSRI will advance their research program. To receive full consideration, application must be complete, including all letters of support, by the following deadlines: Research Professorships, October 1, 2015; Research Memberships, December 1, 2015; Post-doctoral Fellowships, December 1, 2015. Application information can be found at **https://www.msri.org/web/msri/scientific/member-application**.

It is the policy of MSRI actively to seek to achieve diversity in its programs and workshops. Thus, a strong effort is made to remove barriers that hinder equal opportunity, particularly for those groups that have been historically underrepresented in the mathematical sciences. Programs funded by the National Science Foundation.

## SAMSI Workshop for Women in Math Sciences
### 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. Additionally, it will allow attendees to explore what it takes to thrive in careers pursued by mathematical scientists and researchers. Job interview scenarios and networking will be used to illustrate the principles presented in the workshop. Speakers, panelists and discussion leaders will primarily be women and underrepresented minorities in research and management positions in industry and government labs as well as women in academia. Participants are encouraged to present a poster on their research. The workshop will thus provide a unique opportunity to women in mathematical sciences to improve their non-technical skills, including public speaking and professional networking, working in teams, ethical reasoning, and benefits of research experience to apply initiative and creativity in developing mathematical, statistical and computing approaches to interdisciplinary scientific problems.

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. Send questions to springopp@samsi.info

## Workshop on Distributed Data Analysis
## with Applications in Finance and Healthcare
### March 21-22, 206



One of the primary aspect of Big Data is about leveraging all the data sources available within an organization which often comprise of structured data, semi-structured and unstructured data, and publicly available data on the internet. The transformative power of Big Data analytics is to combine all of these data sources into a single collaborative data model, rapidly iterate on the data, apply analytics, and generate insights from the combined data analysis. Big Data are often distributed on the cloud or at the edges of the Internet of Things (IoT), which brings challenges and new opportunities to the design and development of the underlying mathematical or statistical models. The technology infrastructure, such as distributed data storage, computing and modeling platform, streaming of data source into a model and outcomes from a model to the edge device, must be sufficiently developed to keep pace with the need for business insights and ensure scalability and flexibility as data grows.

The research focus of this workshop is on the explorations of the methodology for the computing and modeling architecture for distributed data, including data ingestion and staging platform, enterprise data warehouse and analytics platform. The application focus of this workshop is on two major areas: Healthcare and Finance. The workshop will bring academic researchers and industrial engineers together for the exploration and scientific discussions on recent cutting-edge theories and proven best practices in industries on distributed data analytics. Please send questions to distdata@samsi.info

# Career Opportunities

Amherst College has two tenure-track Assistant Professor Mathematics positions, one with a preference for applied mathematics. We seek applicants who can teach and encourage students of diverse backgrounds, including first-generation students, international students, and students with varying mathematical preparation. Amherst College is an equal opportunity employer and encourages women, persons of color, and persons with disabilities to apply. The college is committed to enriching its educational experience and culture through the diversity of its faculty, administration, and staff. Responsibilities include teaching two courses per semester and supervising undergraduate theses.

Requirements: Ph.D. in mathematics or a related field, strong commitment to research, passion for teaching. Submit cover letter, curriculum vitae, list of publications, research statement, teaching statement, and at least three letters of recommendation, at least one specifically addressing teaching, to MathJobs.Org. Applications accepted until the positions are filled; those received by December 1, 2015, will be guaranteed consideration.

**Required Qualifications and Education:** Ph.D. in Mathematics expected by August 2016. Candidates with a Ph.D. in Mathematics Education with a strong mathematics background and demonstrated ability to teach upper-level mathematics courses will also be considered. Dedication to excellence in teaching undergraduate mathematics; commitment to continued scholarly and professional growth; evidence of reflective thinking about the teaching and learning of mathematics at the undergraduate level; willingness to facilitate student use of technology to promote understanding of mathematics; interest in teaching courses throughout the mathematics curriculum, including precalculus mathematics courses; and strong teaching recommendations. **Preferred Qualifications and Education:** Interest in the innovative use of technology in teaching mathematics and in supervising undergraduate student research.

**Responsibilities – Essential Functions:** Duties each semester include a baseline 9 credit hour teaching load, baseline scholarship and service, and a significant focus (equivalent to 3 credit hours) of additional responsibilities in teaching, scholarship, and/or service depending on the candidate's interests and unit's needs. Newly hired faculty are normally expected to use their 3 credit hours of significant focus for scholarship. Department faculty are expected to teach courses throughout the curriculum, to continually develop and grow as teachers, to maintain an active program of scholarship (broadly defined), and to participate actively in the life of the department. Employment begins August 2016.

**How to Apply:** Interested candidates should apply online at www.gvsujobs.org. A complete application must include in PDF: (1) a personal statement that addresses (a) the applicant's teaching experience, philosophy, and methodology, and (b) how the applicant meets the teaching-related qualifications of the position; (2) a description of the applicant's scholarly interests, experiences, and potential; (3) a vita; (4) a copy of graduate transcripts (unofficial is acceptable); and (5) at least three letters of recommendation, with one letter (preferably two) attesting to the applicant's teaching ability and potential. Letters of recommendation should be sent electronically directly to Jan Kuzee at kuzeej@gvsu.edu and cc'ed to austind@gvsu.edu. The email should include the applicant's name in the subject line. If you have questions about applying online or need assistance, call Human Resources at 616-331-2215. Email questions about the position to: David Austin; Mathematics Search Committee chair (austind@gvsu.edu). **Application Deadline Date:** Complete applications must be received by Wednesday, November 25, 2015.

California State University, Fresno (Fresno State) is currently searching for a tenure-track, assistant professors of mathematics with specialty in any of the subareas of Mathematical Biology (position No 12745), to join our faculty in August 2016. Details about these positions may be found at http://www.fresnostate.edu/csm/math/about/employment-opportunities.html.

Fresno State is a Hispanic-Serving Institution (HSI) that strives to provide excellent academic experiences for students of diverse backgrounds. Hence, ability to demonstrate a commitment to working effectively with faculty, staff, and students from diverse ethnic, cultural, and socioeconomic backgrounds is required.

Fresno State offers competitive compensation, straightforward tenure requirements, and a collegial environment that balances teaching excellence and scholarly contributions. All applicants must submit an application online at jobs.csufresno.edu no later than December 1, 2015, when our search closes. California State University, Fresno is an affirmative action/equal opportunity institution.

For inquires, contact: Dr. Oscar Vega, Search Committee Chair; Department of Mathematics; California State University, Fresno; 5245 N. Backer Avenue, MS PB 108; Fresno, CA 93740-8001; Phone: 559.278.4903; E-mail: ovega@csufresno.edu.

# Career Opportunities

**The Applied Mathematics Graduate Group at UC Merced** has an immediate opening for a **Visiting Assistant Professor** position. This special (non-tenure track) position requires the successful candidate to conduct research and teach 3 courses per academic year; the position is renewable for up to 3 years based on performance and subject to funding. A Ph.D. or equivalent in Applied Mathematics, Mathematics or a related field is required by the time of hire. Preference will be given to candidates at the early stage of their careers. We are seeking exceptionally qualified candidates with expertise in areas across the field of applied mathematics. Special attention will be paid to applicants who can collaborate with researchers in applied mathematics and other fields in natural sciences, engineering and/or social sciences at UC Merced.

The University of California, Merced is an affirmative action/equal opportunity employer with a strong institutional commitment to the achievement of diversity among its faculty, staff and students. The University is supportive of dual career couples. Salary is based on the University of California Academic Salary Scales. Review of applications will begin immediately. Recruitment will remain open until the position has been filled. Apply online at https://aprecruit.ucmerced.edu/apply/JPF00227.

The Department of Mathematics at the University of Kentucky invites applicants for one or more full-time Lecturer positions to begin August 16, 2016. The initial contract is for two years and may be renewed indefinitely, subject to performance. Lecturers are eligible for promotion to the rank of Senior Lecturer after a minimum of 5 years. Lecturers are vital to the teaching mission of the mathematics department. The Lecturer will teach primarily first year mathematics courses as well as some second and third year courses and perform duties associated with the lower-division mathematics program. Lecturers have responsibility for developing the curriculum in our first year service courses. The Lecturer will normally teach three courses per semester and have an administrative workload. The position offers competitive salary and full benefits. Applicants should have completed the Ph.D. degree by the time the appointment begins.

Applications should include the standard AMS Cover Sheet for academic appointment, curriculum vitae, a statement on teaching experience, evidence of effective teaching, and at least three (3) letters of reference including letters addressing teaching and supervision of teaching. Evidence of experience or interest in teaching large classes or coordinating classes is valued. All application materials must be submitted online at http://www.mathjobs.org/jobs/jobs/7910.

In addition, candidates must complete an Academic Profile within the University of Kentucky employment system by visiting https://ukjobs.uky.edu/postings/82261 and selecting apply to this job. This step will only take 5-10 minutes. Applications will not be reviewed until the Academic Profile is completed. Applications will be reviewed as they are received. Applications submitted by November 30, 2015 will receive full consideration. Applicants are asked to indicate if they will be attending the joint AMS/MAA meetings in Seattle in January.

The Department of Biostatistics and Computational Biology (DBCB) at the University of Rochester invites applications for open rank tenure-track positions. Desirable candidates are expected to have an active program in (or clear potential for) methodological research and a high level of enthusiasm for contributing to our Statistics Ph.D. program through teaching and advising graduate students. The Department has a strong preference for attracting applicants with dual and ideally synchronous interests in the development of statistical methodology and collaborative scientific research. Expertise of particular interest includes modeling and analysis of high-throughput –omics data, modeling and analysis of imaging data, clinical/biomedical applications of causal inference, and modeling and analysis of data derived from biological and social networks. The University of Rochester has a strong tradition of collaboration, along with excellent opportunities for interaction with outstanding scientists across the translational research spectrum. More information on DBCB and the University of Rochester can be found at https://www.urmc.rochester.edu/biostat/

**Position Qualifications:** Doctoral degree in biostatistics, statistics or strongly related discipline. Candidates must have excellent oral and written communication skills. Candidates for Associate and Full Professor positions must have an established track record of peer-reviewed publications, have demonstrated success in attracting extramural research funding, and a commensurate track record of mentorship of graduate students and/or postdoctoral scholars.

**To apply:** Candidates should send a cover letter, CV, and 3 letters of reference to the address below. Review of candidate files will commence December 1, 2015. Please email all materials in a single PDF file to BSTFacultySearch@urmc.rochester.edu to ensure timely consideration of your application.

# Career Opportunities

**CAL POLY POMONA**

The **Mathematics and Statistics Department** in the College of Science at **California State Polytechnic University, Pomona (Cal Poly Pomona)** invites applications for two tenure-track positions at the rank of Assistant Professor to begin Fall 2016, one in applied mathematics and one in pure mathematics. Join a growing and dynamic group of mathematicians, statisticians, and mathematics educators actively engaged in education & research.

**The Positions:**
For both positions, your teaching assignment will typically consist of undergraduate service courses, undergraduate math major courses and/or graduate courses in mathematics. It is also expected that you will engage in professional development, including scholarly research, and that you will serve on department, college, and university committees. It is anticipated that you will advise graduate students on thesis projects or preparation for comprehensive exams. CPP has a student body with diverse socio-economic and cultural backgrounds and learning styles, and we are looking for faculty who can work successfully in this environment. In particular, applicants whose work incorporates a global perspective and a commitment to diversity in higher education are encouraged to apply. Salary will be commensurate with experience and qualifications. Our excellent benefits program includes start-up funds and a reduced teaching load during the first two years.

**Application Procedure:** To be considered for the position, upload: cover letter, curriculum vitae, teaching philosophy statement, and research statement, and 3 recent letters of recommendation. Materials can also be emailed as a single PDF. Original graduate and undergraduate transcripts and an application form are required if selected as a finalist. Your application package or cover letter must address your background and interest with regard to each of the requirements listed above in the position description and qualifications. Indicate clearly in cover letter which position (Pure Math or Applied Math) you are applying for. Your completed application packet will be available for examination by all tenured and tenure-track faculty of the Department of Mathematics and Statistics.

The positions are open until filled. First consideration will be given to completed applications received no later than **December 4, 2015**. Early response is encouraged.

E-MAIL: mathstatsearch@cpp.edu;  PHONE: (909) 869-3496 (Search Coordinator Cidni Griffith);  FAX: (909) 869-4904

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**DREXEL UNIVERSITY Dornsife School of Public Health**
*Department of Epidemiology & Biostatistics*

The Department of Epidemiology & Biostatistics at the Dornsife School of Public Health at Drexel University invites applicants for a tenure-track/tenured position at the Assistant/Associate level in Biostatistics for its expanding programs in biostatistics. The successful applicant will have a doctoral degree in biostatistics, statistics, or a related field, an interest in both collaborative and methodological research, and a commitment to excellence in teaching and mentoring. Those applying at the Associate Professor rank must have a record of successful research and evidence of effective teaching.

The Department currently offers MS degrees in Biostatistics and Epidemiology, a PhD in Epidemiology and is currently planning to include a PhD in Biostatistics. The Department has 18 faculty spanning the two disciplines and is truly interdisciplinary. Research funding for the Department comes from NIH, NSF, CDC, and other federal and state agencies, as well as private foundations and industry. The faculty expertise in biostatistics includes spatial statistics, the analysis of imaging data, clinical trials, longitudinal data analysis, Bayesian methods and epidemiology methods. We are soliciting applications from candidates with expertise in all areas of statistics, and rank will be commensurate with experience.

The Dornsife School of Public Health at Drexel University is the only CEPH-accredited School of Public Health in the Philadelphia area, and recently received a $45 million gift to expand the faculty and build new research and educational programs. With the arrival of Dean Ana Diez Roux in 2013, the School has entered a period of growth with new faculty being recruited to each Department. The School is committed to our mission of health as a human right, improving health in cities, eliminating health disparities, and promoting health in all policies.

The 16th largest private university in the nation with more than 8,000 employees and 22,000 students, Drexel is made up of 10 colleges and 3 schools offering professional degrees in engineering, architecture, media arts design, business, law, medicine, nursing, and public health, among others. The University's goal to become "the most civically engaged university in America" drives its work with the City of Philadelphia and diverse community partners. Drexel is located within a short walk of the Amtrak and regional rail stations in the University City section of Philadelphia, a vibrant city with a rich array of health care, educational, and arts institutions.

The confidential application process requires a cover letter describing relevant experience and goals and curriculum vitae. Interested candidates may direct any questions to the search committee co-chairs, Dr. Leslie McClure (lam439@drexel.edu) or Dr. Loni Philip Tabb (lpp22@drexel.edu). Applications will be accepted until a successful candidate has been identified. Three letters of reference will ultimately be required for finalist candidates. Please apply online at www. Drexeljobs.com. Search in job title for Assistant/Associate Professor with requisition number 7156. You may also search in department 6906 SPH – Epidemiology & Biostatistics with requisition 7156. Please contact Ms. Nancy Colon-Anderson, Administrative Assistant, Phone: 267.359.6204, Fax: 267.359.6201, Email: nanderson@drexel.edu if you have any questions or problems.