### **Upcoming Events**

# MAA-AMS Joint Math Meetings

Atlanta, GA January 4-7, 2017

#### **Gulf States Alliance Conference**

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

#### **SIDIM**

University of Puerto Rico in Ponce March 3-4, 2017

# **2017 Field of Dreams** Conference

November 3-4, 2017

### **Field of Dreams Conference**



Thank you to everyone who attended the 2016 Field of Dreams Conference in St. Louis. There will be more pictures and a detailed article about the conference in December's newsletter.

Thank you again for helping to make the conference a success again this year!



### **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.

Alliance Affiliated REU's

### 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 <a href="http://bridge.math.upenn.edu">http://bridge.math.upenn.edu</a>.

### **Iowa Summer Institute in Biostatistics**

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

The <u>Iowa Summer Institute in Biostatistics</u> (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/.

### NAM Events and Other Events of Interest at the 2017 JMM

The 2017 Joint Mathematics Meetings will take place from Wednesday, January 4 though Saturday, January 7 in Atlanta, GA http://jointmathematicsmeetings.org/jmm. The National Association of Mathematicians, Inc. (http://www.nam-math.org) will host a series of events during the 2017 JMM to celebrate the works and lives of underrepresented minorities in the mathematical sciences. For more information, see http://www.nam-math.org/jmm-events.html.

#### **MAA Minority Chairs Meeting**

Wednesday January 4 from 7:00 AM -8:45 AM University, Conference Level, Hyatt Regency Atlanta

#### Hrabowski-Gates-Tapia-McBay Session

Ricardo Cortez (Tulane University) Wednesday January 4, 2017 from 9:00 AM -10:20 AM A704, Atrium Level, Marriott Marquis Atlanta -Mariel Vazquez (University of California at Davis) Packing, Folding and Simplifying DNA Topology

#### **AWM Business Meeting**

Wednesday January 4 from 3:45 PM -4:15 PM A707, Atrium Level, Marriott Marquis Atlanta

#### **AMS Committee on the Profession Panel Discussion**

Diversity and Inclusion in the Mathematical Sciences Pamela Gorkin (Bucknell University), Monica Jackson (American University), John McCleary (Vassar College)

Wednesday January 4 from 4:30 PM { 6:00 PM A601, Atrium Level, Marriott Marquis Atlanta

Carlos Castillo-Chavez (Arizona State University), Duane Cooper (Morehouse College), Kristin Lauter (Microsoft Corporation), Talithia Williams (Harvey Mudd College), Moderated by Helen G. Grundman (AMS)

#### **Special Panel Presentation**

The Mathematics and Mathematicians Behind Hidden Figures Wednesday January 4 from 6:30 PM -8:00 PM A704, Atrium Level, Marriott Marquis Atlanta

#### **AWM Reception and Awards Presentation**

Wednesday January 4 from 9:30 PM -11:00 PM Imperial Ballroom B, Marquis Level, Marriott Marquis Atlanta

### AMS-NAM Joint Special Session on The Mathematics of the Atlanta Univ.

Talitha Washington (Howard University) Monica Jackson (American University)

Colm Mulcahy (Spelman College)

Thursday, January 5 from 8:00 AM -11:50 AM

M101, Marquis Level, Marriott Marquis Atlanta

-8:00 AM -8:20 AM Ronald E. Mickens (Clark Atlanta University)

Applied Mathematics Research at Atlanta Univ./Clark Atlanta Univ.: 1980-2015

-8:30 AM -8:50 AM Samuel J. Ivy (United States Military Academy) Generalizing Parabolic Subsets from Involutorial Automorphisms

-9:00 AM -9:20 AM Monica Christine Jackson (American University)

Race matters: analyzing the relationship between colorectal cancer mortality

rates and various factors within respective racial groups -9:30 AM -9:50 AM Michael P. Johnson (Univ. of Massachusetts at Boston)

Community Data Analytics: Localized Data Analysis and Decision Modeling in the Era of \Big Data" and Smart Cities"

-10:00 AM -10:20 AM Shelby Nicole Wilson (Morehouse College)

Mathematical Model of Temperature Effects on Human Sleep Regulation -10:30 AM -10:50 AM Karen D. King (National Science Foundation)

Why a mathematics degree? Implications of a Mathematics Major for Secondary Teachers

-11:00 AM -11:20 AM Charles C. Earl (Automattic)

AI and Communities of Color: What Questions Should We Be Asking?

11:30 AM -11:50 AM Tepper L. Gill (Howard University)

Non-uniqueness of the dual of a Banach space and its application

#### **AMS-NAM Joint Special Session on The** Mathematics of the Atlanta University Center

Talitha Washington (Howard University) Monica Jackson (American University)

Colm Mulcahy (Spelman College) Thursday, January 5 from 1:00 PM -3:50 PM

M101, Marquis Level, Marriott Marquis Atlanta

-1:00 PM -1:50 PM Johnny L. Houston (Elizabeth City State Univ.)

The Culture and History of Mathematics In The Atlanta Univ. Center -2:00 PM -2:20 PM Sandra Rucker (Clark Atlanta University)

A Historical Perspective of Mathematics at Morris Brown College

-2:30 PM -2:50 PM Colm Mulcahy (Spelman College) A century of mathematical excellence at Spelman College

-3:00 PM -3:20 PM Sylvia T. Bozeman (Spelman College)

Mathematics at Spelman College: Mission Possible

-3:30 PM -3:50 PM Duane Cooper (Morehouse College)

Morehouse Mathematics: Making a Difference from "Pop" through "Doc" to the Present

#### Granville-Brown-Haynes Session of Presentations by Recent **Doctoral Recipients**

Talitha M. Washington (Howard University)

Friday, January 6 from 1:00 PM -4:00 PM

A708, Atrium Level, Marriott Marquis Atlanta

-1:00 PM -1:20 PM Piper A. Harron (University of Hawaii at Manoa)

Equidistribution of Shapes of Number Fields of degree 3, 4, & 5

-1:30 PM -1:50 PM Nourridine Siewe (NIMBioS)

Granuloma Formation in Leishmaniasis: A Mathematical Model

-2:00 PM -2:20 PM Deidra Andrea Coleman (Philander Smith College) A Bayesian False Discovery Approach to Syndromic

Surveillance

2:30 PM -2:50 PM Cris Negron (Massachusetts Institute of

Technology) Hopf algebras, tensor categories, and gauge invariants -3:00 PM -3:20 PM

Ashley K. Wheeler (University of Arkansas)

Finiteness of Associated Primes of Local Cohomology Modules over Stanley-Reisner Rings

3:30 PM -3:50 PM Valerie N. Nelson (Howard Univ./Dept. of Defense)

Existence Results for Some Higher-Order Abstract Differential Equations with Applications to PDEs

#### **NAM Banquet**

Friday, January 6 from 6:00 PM -8:35 PM

Imperial Ballroom B, Marquis Level, Marriott Marquis Atlanta

-6:00 PM -6:30 PM Cash Bar Reception

-6:30 PM -7:30 PM Dinner

-7:30 PM -7:45 PM NAM Lifetime Achievement Award

Nagambal Shah (Spelman College) -7:45 PM -8:35 PM Cox-Talbot Address

Garikai Campbell (Morehouse College)

The Changing Higher Education Landscape: One Mathematician Turned

Administrator's View

#### **NAM Panel Discussion**

Transforming Post-Secondary Education (TPSE) Mathematics:

Implications for the Preparation of

African American Undergraduates and Institutions

Saturday January 7, 2017, 9:00 AM -9:50 AM A708, Atrium Level, Marriott Marquis Atlanta

Frank Ingram (Winston-Salem State University)

Sylvester James Gates, Jr. (University of Maryland at College Park)

Asamoah Nkwanta (Morgan State University)

Suzanne L. Weekes (Worcester Polytechnic Institute)

Moderated by Duane Cooper (Morehouse College)

#### **NAM Business Meeting**

Saturday January 7 from 10:00 AM -10:50 AM A708, Atrium Level, Marriott Marquis Atlanta

#### NAM Claytor-Woodard Lecture

Saturday January 7 from 1:00 PM { 1:50 PM A708, Atrium Level, Marriott Marquis Atlanta

-Wilfrid Gangbo (University of California at Los Angeles)

Paths of minimal lengths on the set of exact differential k-forms

## **Building Future Faculty Institute at NC State**

The NC State University Building Future Faculty (BFF) Institute is a two day all-expenses paid workshop for

doctoral students and post-doctoral scholars who are interested in pursuing academic careers, who are committed to promoting diversity in higher education, and who are one to two years away from beginning a job search.

Participants attend sessions describing life as a faculty member at a research extensive university, expectations of new faculty, and resources available to faculty for help with research and teaching.

#### Selection criteria

- Individuals with the ability to contribute in meaningful ways to the university's continuing commitment to cultural ethnic diversity
- In a doctoral or post-doctoral program corresponding to a discipline at NC State.
- Post-docs and graduate students who have begun their dissertation research.
- Desire an academic teaching career at a research institution
- Desire to pursue independent research as a faculty member
- Demonstrate the potential to become a faculty member
- Availability during the programs dates

**Important dates:** 2017 Program Dates: Wed., March 15 – Sat., March 18, 2017

**Application Deadline:** Sun., November 13, 2016 at 11:59 p.m. EST **CONTACT US:** Visit: go.ncsu.edu/BFF Email:bff-program@ncsu.edu



### **USTARS 2017**

### USTARS 2017 will be held on March 30 – April 2, 2017 in Amherst, Massachusetts.



We are excited to announce that the seventh annual Underrepresented Students in Topology and Algebra Research Symposium will be hosted by Amherst College March 31- April 2, 2017.

USTARS is an annual conference where students at all stages in their research present their work and form research and social support networks with other mathematicians with related

research and professional interests. USTARS provides an invaluable opportunity for students who have not yet chosen a research topic, or have switched areas of study, to learn about potential research topics.

Presenters at USTARS give 30-minute research talks on various topics in the fields of topology and algebra. Two graduate students are chosen to give 1-hour presentations as the Distinguished Graduate Students (DGS). As this year's Invited Faculty Speaker, Dr. Chelsea Walton (Temple University) will give the keynote address. In addition to the student lectures, a poster session highlights undergraduate research, and an early-career faculty development workshop precedes the symposium.

**Application Deadline:** January 7, 2017

Visit us at www.ustars.org to apply and for additional information about USTARS events.

## **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.

### Assistant Professor in Mathematics at Indiana Univ. Northwest

The Department of Mathematics and Actuarial Science at Indiana University Northwest invites applications for a tenure-track position at the Assistant Professor level, starting in August of 2017. Our Department currently supports undergraduate degrees in Mathematics (BS, BA, Minor) and Actuarial Science (BS). The successful candidate is expected to teach three courses per semester at all levels of the undergraduate Mathematics curriculum, develop a strong research program and participate in departmental and campus-wide service activities.

Individuals must apply online at <a href="https://indiana.peopleadmin.com/postings/3118">https://indiana.peopleadmin.com/postings/3118</a> uploading a letter of application, curriculum vitae, statement of research interests, and a statement of teaching philosophy. In addition, three letters of recommendation must be sent directly from recommenders to <a href="mailto:ihozo@iun.edu">ihozo@iun.edu</a>. At least one letter must address candidate's teaching.

Review of applications will begin on December 1st, and will continue until the position is filled. Questions concerning the position may be sent to <a href="mailto:ihozo@iun.edu">ihozo@iun.edu</a>.

## Assistant Professor of Math Opening at Grand Valley State Univ.

Required Qualifications and Education: Ph.D. in Mathematics; ABD will be considered with Ph.D. completed by August 2017. Candidates with a Ph.D. in Mathematics Education with a strong mathematics background, comparable to at least a Master's degree in Mathematics, and demonstrated ability to teach upper level mathematics courses will also be considered. Dedication to excellence in teaching undergraduate mathematics; strong teaching recommendations; 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; and interest in teaching courses throughout the mathematics curriculum, including precalculus mathematics courses.

How To Apply: Interested candidates should apply online at jobs.gvsu.edu. 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 23, 2016.

### Assistant Professor Opening at the University of California, Merced

The School of Natural Sciences at UC Merced invites applications for three new faculty in Applied Mathematics starting July 1, 2017 at the rank of tenure-track Assistant Professor. For one of these positions, we are seeking exceptionally qualified candidates with expertise in statistics, probability, and/or stochastic processes. For the other two, we are seeking all exceptionally qualified candidates in applied mathematics areas. A Ph.D. in Applied Mathematics, Statistics, or a related scientific field, demonstrated excellence in research, teaching, and strong interpersonal communication skills are required.

To apply to the position in statistics, probability, and/or stochastic processes, vis-

it <a href="https://aprecruit.ucmerced.edu/apply/JPF00390">https://aprecruit.ucmerced.edu/apply/JPF00390</a>. To apply to the position in applied mathematics, vis-

it https://aprecruit.ucmerced.edu/apply/JPF00391. The deadline for all applications is October 31, 2016.

For more information, contact Harish S. Bhat: <a href="https://documerced.edu">https://documerced.edu</a> for the statistics position and contact Arnold D. Kim: <a href="https://documerced.edu">adkim@ucmerced.edu</a> for the applied mathematics positions.

## Tenure Track Assistant Prof. of Math Opening at Williams College

The Williams College Department of Mathematics and Statistics invites applications for two tenure-track positions in mathematics, beginning fall 2017, at the rank of assistant professor (in an exceptional case, a more advanced appointment may be considered). We are seeking highly qualified candidates who have demonstrated excellence in teaching and research and who are committed to working with an increasingly diverse student body. The teaching load is four 12-week semester courses per year and a pass-fail Winter Study class every other January. Preference will be given to candidates who will have a PhD in mathematics by September 2017. We welcome applications from members of groups traditionally underrepresented in the field.

Applicants can apply electronically at <a href="http://mathjobs.org">http://mathjobs.org</a>. Evaluations of applications will begin on or after November 15 and will continue until the position is filled. All offers of employment are contingent upon completion of a background check <a href="http://dean-faculty.williams.edu/prospective-faculty/background-check-policy">http://dean-faculty.williams.edu/prospective-faculty/background-check-policy</a>. For more information on the Department of Mathematics and Statistics, visit <a href="http://math.williams.edu/">http://math.williams.edu/</a>.

Williams College is a coeducational liberal arts institution located in the Berkshire Hills of western Massachusetts. The college has built its reputation on outstanding teaching and scholarship and on the academic excellence of its approximately 2,000 students. Please visit the Williams College website (<a href="http://www.williams.edu">http://www.williams.edu</a>). Beyond meeting fully its legal obligations for non-discrimination, Williams College is committed to building a diverse and inclusive community where members from all backgrounds can live, learn, and thrive.

### Tenure Track Assistant Prof. of Math Opening at Bowdoin College

The Department of Mathematics at Bowdoin College invites applications for a tenure-track position at the rank of assistant professor beginning Fall 2017. Our search will focus on the fields of number theory or ergodic theory and theoretical

dynamics, areas which complement the research interests of our faculty. We are particularly interested in mathematicians whose research areas include both theoretical and computational aspects. The Mathematics Department welcomes applications from candidates committed to the instruction and support of a diverse student population and those who will enrich and contribute to the ethnic and cultural balance of the College.

Bowdoin College accepts only electronic submissions. Please visit <a href="http://www.MathJobs.org">http://www.MathJobs.org</a> to submit a cover letter, AMS application cover sheet, curriculum vitae, statements on research and teaching, and at least three letters of recommendation. One letter should address teaching. Review of applications will begin on December 7, 2016, and will continue until the

position is filled. We expect to participate in the Mathematical Sciences Employment Center at the Joint Mathematics Meetings in Atlanta in January 2017. Please indicate in your cover letter if you plan to attend the joint meetings, and if you are giving a talk.

# Lecturer in Statistics Opening at Amherst College

Applications are invited for a position as a lecturer in statistics with an appointment to begin July 1, 2017. Submit cover letter, curriculum vitae, teaching statement, and at least three letters of recommendation that specifically address teaching, to MathJobs.Org. Applications will be accepted until the position is filled, but all applications received by October 31, 2016, will be guaranteed consideration.

See <a href="https://www.amherst.edu/academiclife/dean\_faculty/faculty\_hiring/employment">https://www.amherst.edu/academiclife/dean\_faculty/faculty\_hiring/employment</a> for details of the position, and <a href="https://www.amherst.edu/academiclife/departments/mathematics-statistics/">https://www.amherst.edu/academiclife/departments/mathematics-statistics/</a> for details about the department. Questions can be addressed to mathstats@amherst.edu..

## Assistant Professor Opening at California State University, Fresno

California State University, Fresno (Fresno State) is currently searching for a tenure-track, assistant professor of mathematics with a specialty in Combinatorial/Discrete Geometry or Algebraic Geometry (position No. 13032), to join our faculty in August 2017.

An ideal candidate must have successful experience teaching mathematics college courses, and have research expertise in Combinatorial/Discrete Geometry or Algebraic Geometry, including a recent publication record in the area. Also, Fresno State has been recognized as a Hispanic-Serving Institution (HSI), an Asian American/Native American/Pacific Islander-Serving Institution (AANAPISI), and has been designated to the Community Engagement Classification by The Carnegie Foundation for the Advancement of Teaching; Fresno State 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 various ethnic, cultural, and socioeconomic backgrounds is also required. Candidates who want to apply for this position, or want more information about it, should visit <a href="http://www.fresnostate.edu/adminserv/hr/jobs/">http://www.fresnostate.edu/adminserv/hr/jobs/</a>. Review of applications will begin December 1, 2016, and will continue until the position is filled. For inquires, contact: Dr. Oscar Vega, Search Committee Chair; Department of Mathematics; CSU, Fresno; 5245 N. Backer Avenue, MS PB 108; Fresno, CA 93740-8001; Phone: 559.278.4903; E-mail: <a href="https://www.gresno.edu">ovega@csufresno.edu</a>.

### Tenure Track Assistant Prof. of Math Opening at Amherst College

Amherst College has a tenure-track position in mathematics at the rank of assistant professor. We seek applicants who can teach and encourage students of diverse backgrounds, including first-generation college 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 its 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, including at least one specifically addressing teaching, to <a href="MathJobs.Org">MathJobs.Org</a>. Applications accepted until the position is filled; those received by December 1, 2016, will be guaranteed consideration.

## Visiting Assistant Professor Position at Purdue University

#### **Golomb Visiting Assistant Professor**

These three-year positions intended for recent Ph.D.s will commence August 2017 and are open to mathematicians who demonstrate exceptional research promise and a strong teaching record. Ph.D. (or its equivalent) in mathematics or closely related field by August 14, 2017 is required. Applicants should have research interests in common with Purdue faculty. Duties include teaching undergraduate and graduate mathematics courses. Applications should be submitted online through <a href="https://www.mathjobs.org/jobs/jobs/9085">https://www.mathjobs.org/jobs/jobs/9085</a> and should include: the AMS cover sheet for academic employment, a curriculum vitae, a research statement, and three letters of recommendation, one of which discusses the candidate's teaching qualifications.

Reference letter writers should be asked to submit their letters online through <a href="https://www.mathjobs.org/jobs/jobs/9085">https://www.mathjobs.org/jobs/jobs/9085</a> Direct all inquiries to <a href="mathhead@purdue.edu">mathhead@purdue.edu</a>. Screening of applications will begin November 14, 2016 and continue until filled. Some offers will be made before the end of January 2017. For more information see <a href="www.math.purdue.edu/">www.math.purdue.edu/</a>.