

Math Alliance News

Volume 2, Issue 2

Upcoming Events:

Statistical Inference in Sparse Highdimensional Models: Theoretical and Computational Challenges Workshop

Research Triangle Park, NC February 24-26, 2014

SIDIM XXIX

Pontifical Catholic University of Puerto Rico in Ponce, Puerto Rico February 28 - March 1, 2014

2014 Fostering Diversity in Biostatistics Workshop

Baltimore, MD March 16, 2014

Brown University Symposium for Undergraduates in the Mathematical Sciences SUMS

Brown University April 5, 2014

USTARS 2014

UC Berkeley April 11-13, 2014

2014 NSF-SBMS Conference on Inverse Scattering & Transmission Eigenvalues

University of Texas at Arlington May 27-31, 2014

Recruiting and Retaining Graduate Students in the Statistical Sciences and Applied Mathematics

Research Triangle Park, NC June 5-6, 2014

Poisson 2014

The University of Illinois at Urbana- Champaign August 4-8, 2014

Field of Dreams Conference

Phoenix, AZ *Note Location Change November 7-9, 2014

Welcome Dr. Louis Beaugris, Director of the Northeast Regional Alliance



The National Alliance for Doctoral Studies in the Mathematical Sciences would like to officially announce and welcome Dr. Louis Beaugris, Kean University, as the Director of the Northeast Regional Alliance. Originally from Haiti, Beaugris moved to New York after high school. He graduated magna cum laude from CUNY-Baruch College with a bachelor's degree in mathematics and received his PhD in mathematics at the University of Iowa in 2002. Beaugris is currently a faculty member in the

Department of Mathematics at Kean University in New Jersey.

Several years ago, Alliance Mentors in Southern California proposed the formation of a regional alliance that would concern itself with the transition from high school to college and then with the transition from entering college student to math sciences major. A meeting was held at the 2012 Field of Dreams conference for the purpose of implementing this project, which was given the title of Pacific Alliance. Attendees included 16 mathematical sciences faculty from

"I am very honored by the opportunity, and hope that my work will add to the impact of the Alliance"

-Beaugris

ten colleges and universities in Southern California as well as several members of the National Alliance governing board. Dr. Helena Noronha from CSU-Northridge and Dr. Dagan Karp from Harvey Mudd College were named co-directors of the new alliance and a plan of action was agreed upon, to include building ties with local high schools and community colleges, developing Math Circles in coordination with MSRI and working with Dr. Bill Velez to increase the number of mathematics sciences majors throughout the region.

The Alliance has since designated **seven regions nationally** in which it has a substantial presence: Pacific, Southwest, Gulf States, Caribbean, Southeast, Midwest, and Northeast. (We will add to these regions as we expand our community.) In order to facilitate these regional activities, we have created an Alliance Regional Board. The members of the Regional Board are presently:

Dr. Helena Noronha — Pacific Region

Dr. Erika Camacho — Southwest Region

Dr. Joe Omojola — Gulf States Region

Dr. Joaquin Rivera — Caribbean Region

Dr. Ulrica Wilson — Southeast Region

Dr. Leslie Hogben — Midwest Region

education."

Dr. Louis Beaugris — Northeast Region

Beyond helping to build community in each of the Alliance Regions, the Regional Board will serve to build Alliance leadership in the next three to five years. Beaugris has already had a tremendous impact in mathematics working with the Newark Area Math Circle, a program that targets middle school and high school aged students who are interested in math. Beaugris notes that "The Alliance has established a nice presence in the Northeast region. We now have close to 50 faculty mentors from a diverse group of colleges and universities. One of the things I'd like to achieve is to bring in even more mentors to serve as models and guides to students, helping them in their quest for access to graduate

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Gender and the National Alliance for Doctoral Studies in the Mathematical Sciences: The Changing Academic and Career Aspirations of Alliance Students



The disproportionately low participation of women in science, technology, engineering, and mathematics (STEM) fields has made the career aspirations of mathematically talented students of interest to scholars of higher education. Because members of the National Alliance for Doctorial Studies in the Mathematical Sciences (henceforth "the Alliance") are recruited and encouraged to pursue mathematical careers and exposed, through their membership, to diverse mathematicians and math related careers, the question arises as to whether the aspiration differences between genders still exists for this population. In this study we use the results from a survey of past and present Alliance students to investigate the academic and career aspirations of mathematically talented students, paying particular attention to women. Click here to read the full brief.

The Math Alliance Research Study has also published a one page summary of our 2013 Field of Dreams data results. You can view the results here.

2014 NSF-CBMS Conference Inverse Scattering and Transmission Eigenvalues







The Department of Mathematics at University of Texas at Arlington is hosting an NSF-CBMS Conference on Inverse Scattering and Transmission Eigenvalues featuring Prof. David Colton of University of Delaware as the principal lecturer. The conference is supported by the NSF. Financial support for attending the conference will be provided to about 30 participants. Established researchers, interested newcomers, postdoctoral fellows, and graduate students are invited to apply to attend the conference. Women and underrepresented minorities are strongly encouraged to apply. **Visit the conference website here to learn more.**

2014 Joint Mathematics Meetings: Awards for Two Alliance Leaders

This past January the 2014 **Joint Mathematical Meetings** (JMM) were held in Baltimore, Maryland. With nearly 6,500 registered the JMM is the largest mathematics meeting in the world. Many Alliance Mentors and Scholars were in attendance, including Alliance Director Dr. Philip Kutzko.

The Alliance would like to congratulate Alliance Director and professor of mathematics at the University of Iowa, Philip Kutzko, on receiving the 2014 American Mathematical Society (AMS) Award for Distinguished Public Service. Presented every two years by the American Mathematical Society, the award is given to a research mathematician who has made a distinguished contribution to the mathematics profession during the preceding five years. Dr. Kutzko accepted the award January 16, 2014, at the Joint Mathematics Meetings in Baltimore. Click here to see the full news release on the award.



JOHN MATHEMATICS MEETINGS
Largest Mathematics Meeting in the World
ANNAHAM 16-18 (NED 547), 2014: BALIMORE CONVENION CENTER BAITMORE, MO

We would also like to congratulate Alliance Mentor Dr. William Yslas Vélez who received the Gweneth Humphreys Award. The Association for Women in Mathematics (AWM) presented the Fourth Annual M. Gweneth Humphreys Award to Dr. Vélez, Professor of Mathematics and University Distinguished Professor at the University of Arizona, at the Joint Mathematical Meetings. Vélez is known for his ability to encourage women to study mathematics and pursue mathematical careers. Click here to read the whole press release from the Association for Women in Mathematics.



Welcome back to this month's edition of *Ask Rolando*. Seeing as they allowed me to write another column, I can safely assume that no one in charge is reading this. I'm not even sure if anyone out there cares about what I have to say. But when no one is interested, no one will judge, and that gives me freedom.

Question: How easy/difficult is it to balance your school work and research, personal life, and work (if you have a job)?

This is a question that I hope comes up in regular conversation so that can brag about my accomplishments. Sometimes I like to steer the conversation towards getting people to ask me about my work life. Back when I was working on my bachelors/masters degree, I was barely able to afford college; financial aid only helped so much, which meant I had to work. At my most desperate moment I was simultaneously working 4 jobs while trying to be a full time student: RA, teaching assistant and private as well as group tutoring. When I wasn't at school or work, I was driving to school or work. This doesn't include the responsibilities of being the eldest child: cooking, cleaning, driving, and being a stand-in parent. Oh yeah, I had to do research and finish my thesis on top of all that. I can't express how much that sucked. I remember walking home one night and some guy tried to rob me, but the thing that upsets me is he didn't try to take all the grading I had to do that day. He would have saved me a few hours of work that night and given me a great excuse; "Sorry I can't give you feedback on your analysis assignment because I got mugged."

My lifestyle has changed significantly since starting grad school. No one has tried to mug me since I moved to Iowa. Plus I have way more free time for myself. In grad school, you really don't have a job outside of your classes, research, and teaching. I wish I could give you my perspective of how it feels to manage school alongside teaching, but I am lucky enough to be on a fellowship that doesn't require me to do anything except do well in my classes. I have substituted the time that I would have spent preparing lectures or grading with taking an extra class and starting my research. There are weeks where I felt like I was overwhelmed with work followed by those weeks where everything seemed so simple.

As far as my personal life goes, I have an awesome cohort here. We go out, drink, dance. We stay in and have dinner or watch a movie. We'll sit around and try to do what feels like impossible homework assignments. Many of the people who have quickly become my great friends were people I met during the prospective weekend; I consider prospective visits to be one of the most important factors in choosing a grad school but more on that later. I now have way more time to focus on myself. I can sit and reflect on my past, which sometimes leads to me wallowing in self-pity, but as any of my friends know, it isn't too had for me to be self-deprecating. Sitting down and thinking about my life's regrets, the decisions I would have made, is a luxury I can now afford. I now have the time and money to travel; usually it will be because of a conference or workshop, which means that the department can split the bill. This is my chance to see the world all while being able to study something I love doing.

That does it for now. Send in more questions. Considering that April is when grad school decisions are due, I think it would be important to answer questions on choosing the right grad school for you. Many of you will be going on prospective weekends and if you were as lost as I was in that process, hopefully my mistakes will be of some use to you. Finally, I think I deserve a logo that is better than some default clip art, but I don't want put in any actual work. So if you think you have a good idea, send your submissions to mathatance@uiowa.edu.

Summer Programs for Undergraduates



Arizona State University

Mathematical & Theoretical Biology Summer Program

June 4 - July 25, 2014

California State Polytechnic University, Pomona

Preparing Undergraduates through Mentoring toward PhD's (PUMP)

July 6 - August 1, 2014

Grand Valley State University

The REU Program in Mathematics

June 15 - August 10, 2014

Harvey Mudd College

EDGE: A Mathematics Program for Women

June 2 - 27, 2014

Kansas State University

Summer Undergraduate Mathematics Research (SUMaR)

May 27 - July 22, 2014

SAMSI IMAGe

IMAGe Summer Program

July 8-16, 2014

University of Iowa

Iowa Summer Institute in Biostatistics (ISIB)

May 31 - July 18, 2014

University of Nebraska-Lincoln

Nebraska IMMERSE

June 9 – July 18 (Pre-grads)

May 28 – July 18 (Graduate students, early-career faculty)

Valparaiso University

The Valparaiso Experience in Research by Undergraduate Mathematicians (VERUM)

May 28 - July 30, 2014

Winthrop University

Winthrop University REU: Bridging Applied & Theoretical Mathematics

May 27 - July 25, 2014

The National Science Foundation's Graduate Research Fellowship Program 2013 Awardees



Congratulations to five Alliance Scholars on receiving awards from The National Science Foundation's Graduate Research Fellowship Program (GRFP). The National Science Foundation's GRFP helps ensure the vitality of the human resource base of science and engineering in the United States and reinforces its diversity. The program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based master's and doctoral degrees at accredited US institutions. Among the awardees were five Alliance Scholars listed below.

Samuel Jakob Cavazos— Northwestern University Steven Collazos— University of Minnesota— Twin Cities Alexis Brianca Cook— University of Michigan Ann Arbor Marissa Kawehi Loving— University of Illinois at Urbana-Champaign Adam Martinez— Cornell University

The 2014 process is underway, however the 2015 application will open this summer with a deadline in November. Alliance Scholars are strongly encouraged to learn more about and apply to this program.

There are also opportunities for Alliance Mentors to serve as panelists to review applications. Please visit the **National Science Foundation's Graduate Research Fellowship Program website** to learn more.

