
News@Math&Stat

*Department of Mathematics and Statistics
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Welcome by Department Chair Nagaraj K. Neerchal

It is a pleasure to invite you to browse the Fall 2009 issue of our department's newsletter. We are reporting on many exciting items including hiring a new faculty, a new NSF grant for an REU site, and a successful graduate student recruiting event we hosted recently. Please check out the kudos section for new grants and other accomplishments of our department. UMBC has been experiencing severe budget cuts along with every other state institution in Maryland. Our department had to make significant changes in the way we operate in order to meet our mission. We had to move towards larger size lectures in our lower level classes, a change with potential adverse pedagogical impact. Only a strong economic recovery can turn the budget situation around. On a personal note, I want to thank my colleagues for their support in my re-appointment as the chair for a second term. I hope to take advantage of the lessons I learned in the first term and build on our successes.



New NSF-Funded REU Site in Summers 2010 and 2011

We are very excited that the department was successful in attracting funding from the National Science Foundation for the new REU Site: Interdisciplinary Program in High Performance Computing. The eight-week programs in Summers 2010 and 2011 led by **Dr. Nagaraj K. Neerchal** and **Dr. Matthias K. Gobbert** will combine an introduction to scientific, statistical, and parallel computing with team work on interdisciplinary research projects from clients in application areas. Monitor www.umbc.edu/hpcreu for more information and continuing updates.

New Faculty: Weining Kang

Dr. Weining Kang joined the department this Fall. He obtained his Ph.D. in Mathematics from the University of California, San Diego in 2005 under the direction of Prof. Ruth Williams. From 2005 to 2009 he was a Zeev Nehari visiting assistant professor and then a postdoc associate at Carnegie Mellon University. His general research interests are in probability theory, stochastic processes, and their applications. His current interest is in stochastic modeling and performance analysis of stochastic systems that arise from manufacturing, telecommunications and computer systems.



News from the SIAM Student Chapter by President Alen Alexanderian

The SIAM student chapter at UMBC has planned a variety of events and activities for its second year. In September **Alen Alexanderian** (SIAM chapter President), **Noemi Petra** (SIAM chapter Vice President), and **Dr. Renetta Tull** (Assistant Dean for Graduate Student Development at UMBC) presented their ideas on how to succeed in graduate school. In mid November **Sonja Follett** (from English Language Center at UMBC) will host a session on technical writing for the graduate students in the department. As a follow-up, the chapter will host a workshop in spring on how to create a technical research poster. And in late April the chapter plans to host a one-day regional graduate student conference for local SIAM chapters. The event will include student poster sessions and will be capped off with a keynote talk by **Dr. Doug Arnold** (President of SIAM). Finally we plan to end the year with a trip to the SIAM Annual meeting in Pittsburgh next summer for interested graduate students. The chapter officers for 2009-2010 are **Alen Alexanderian** (President), **Noemi Petra** (Vice President), **Aaron Churchill** (Secretary), **Kyle Stern** (Treasurer), and **Zana Coulibaly** (Webmaster). The chapter faculty advisor is **Dr. Susan Minkoff**.

SIAM®

News from the Graduate Program by Graduate Directors Kathleen Hoffman and Anindya Roy

Greetings from the Graduate Program Directors. We congratulate our recent graduates: **Amanda Gassman**, **Caroline Smith** and **Stephen Thompson** (MS in Applied Mathematics); **Deepak Ayyala**, **Alex Majlaton** (MS in Statistics) **Xiaoshu Feng**, **Nicholas Kolupanowich**, **Erum Marfani**, **Nicole Wood** (MS in Statistics, Biostatistics track); **Ishani Roy** (MS in Statistics, environmental track); **Melania Moldovan**, **Cosmin Petra**, **Adiran Vancea** (PhD in Applied Mathematics) and **Martin Klein** (PhD in Statistics). We also had a very successful year for recruiting. Ten new students (seven full-time and three part-time) have joined the applied mathematics graduate program and fourteen new students (10 full-time and four part-time) have joined the statistics graduate program. We look forward to working with them throughout the year. A contingent from UMBC (**Dr. Kathleen Hoffman**, **Dr. Seetharam Gowda** from mathematics and **Dr. Renetta Tull**, Director of PROMISE) attended American Institute of Mathematics workshop on Recruiting and Retaining Minority Students in the Mathematical Sciences, Aug 2-6, 2009. Many of our students have received awards/fellowships since our last newsletter. **Aaron Churchill** (mathematics) has been awarded an IGERT fellowship; **Michelle Danaher** (statistics) has received an NICHD pre-doctoral fellowship; **James Travis** (statistics) has received the annual GEST award given to a UMBC student by the NASA Goddard center; **Liana Medina-Rios** (applied mathematics) and **Faraz Shaikh** (statistics) have joined our graduate programs with Bridge to Doctorate fellowships. We congratulate all of them. As we move forward, the GPDs and the faculty will work hard to sustain the success of our students and the productivity of our graduate program through these challenging times.



News from the Undergraduate Program by Undergraduate Advisor Yoon Song

In the fourth CNMS Student Recognition Day in May 2009 **Clifford Bridges** and **Erika Nesvold** were named as Outstanding Graduating Seniors in Mathematics, **Michelle Danaher** as Outstanding Graduating Senior in Statistics. **Ryan Goldberg**, **Subhash Paruchuru**, **Geoffrey Clapp**, **Alex Volkening** and **Sergey Erenberg** were Selected as Outstanding Seniors and Juniors in mathematics. In August 2008, there were 4 students graduated with Mathematics majors, 75 Math minors, 15 Stat Majors and 7 Stat minors.



News from the MSGSA by President Gaurav Sharma

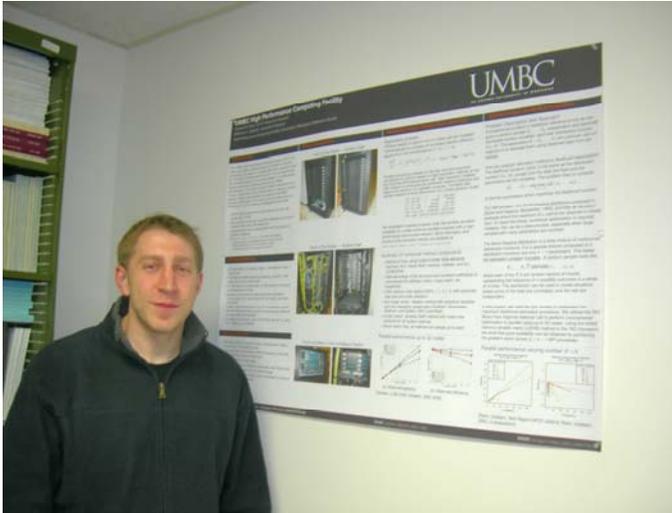
The Mathematics and Statistics Graduate Student Association (MSGSA) is planning events throughout the year to bring the graduate student population in our department together. These events include the Mathematics and Statistics faculty in addition to graduate students, and provide a nice venue for the students and faculty to interact socially. In addition to gatherings, the MSGSA has been working to ensure that the computing needs of the graduate students in the department are met. With the help of the department, we intend to acquire two Windows PC's and two printers. This setup will facilitate the work of Teaching Assistants, who often need to manipulate and print Microsoft Office documents, as well as provide a nice convenience for the students. Also, last summer MSGSA sponsored the board games for fun and recreational activity of the departmental graduate students. The current officers for 2009 **Gaurav Sharma** (President), **Deepak Ayyala** (Vice President), **Andrew Raim** (Treasurer), **Xiaoyu Dong** (Secretary) and **Sanatan Saraf** (GSA Senator).

News from the Council of Majors and Pi Mu Epsilon by President Aaron B. Pearlman



The Pi Mu Epsilon Honors Society and the Mathematics Council of Majors has new officers this year: **Aaron B. Pearlman** (President), **Victoria Kohl** (Vice-President), **Katie Salley** (Secretary), and **Jonathan Mchenry** (Treasurer), pictured left to right. The societies are currently collaborating with **Steven Southall**, president of Math Circle, to sponsor monthly guest speakers working in interesting fields of mathematics. The Pi Mu Epsilon Honors Society is also seeking volunteers for weekly Math 301 tutoring next semester.

U(2) Can do Math+Stat Beyond College



In early Fall the department held UMBC@UMBC, an information and recruiting event for our graduate programs in Applied Mathematics and Statistics. The first of these two UMBCs stands for U(2) Can do Math+Stat Beyond College, and you can probably guess what the second refers to!

After casting a wide net at local colleges and universities, we were fortunate to attract 20 attendees, drawn from six institutions (University of Delaware, Delaware State University, McDaniel College, United States Naval Academy, Salisbury University, and UMBC) and from industry.

A major goal of the day was to help undergraduates at local colleges and universities gain an appreciation for what Applied Mathematicians and Statisticians actually do, and to pique students' interest in some of the many research areas where Mathematicians and Statisticians can have an impact.

The event started with a "get-to-know-you" lunch with faculty in the Skylight Room, followed by research posters by graduate students and faculty. The buzz of conversation during the poster session was very encouraging. In the panel on graduate study and careers, **Kevin Drummey** (Statistician at NSA with a UMBC PhD), **Padmanabhan Seshaiyer** (Mathematician at George Mason University, also with a UMBC PhD) and **Dawn Lott** (PhD Mathematician at Delaware State University) shared their varied life and professional experiences. The students attendees then took advantage of the opportunity to ask questions of our graduate student panelists, **Zana Coulibaly**, **Noemi Petra**, **Gaurav Sharma**, and **Elizabeth Stanwyck**. The event concluded with the PROMISE Panel and Dinner, When Faculty Say 'X' they really mean 'Y', featuring the department's own **Kathleen Hoffman**.

Thanks to all who contributed their time and energy to help make UMBC@UMBC a success!

New Staff Members Join the Math Department

The Department Welcomes a New Staff Member and Student Worker, **Ms. Shilpa Shah** joined the department as Coordinator of Finance and Programs and **Ms. Chaitra Sathyanarayana** as General Assistant in July 2009. Shilpa has worked at UMB and Rutgers University. Shilpa is working closely with Deneen on budgets, financial reporting and programs. Chaitra is a second year Graduate Student studying Computer Engineering here at UMBC. Chaitra is working with us part time providing administrative and database support. Continuing is **Boris Alemi** as Systems Specialist, **Deneen Blair** as Assistant Director of Finance and Programs and **Tarsha Randolph** as Administrative Assistant II.

CIRC Expands Software Workshop Series and Client Base



The Center for Interdisciplinary Research and Consulting (CIRC) in the Department of Mathematics and Statistics makes the expertise of the department's faculty and students available to the community both on- and off-campus. CIRC continues its cooperation with the UMBC Division of Information Technology by offering weekly hands-on software workshops in instructional computer labs. The first three MATLAB workshops of this series formed a very popular sequence that introduced programming in MATLAB's native scripting language, and the workshop series boasted a new all-time record of 42 attendees during the workshop on Basic Programming in MATLAB. Also, the CIRC Social Hour (photo), held every Friday 10:30-11:30, has become an established and popular feature in the department. In addition, CIRC expanded its synergistic collaboration with the UMBC High Performance Computing Facility (HPCF, www.umbc.edu/hpcf) to provide user support through a consulting approach when **Andrew Raim**, Ph.D. student in Statistics, became the HPCF RA for 2009-10. The students involved with CIRC this semester are **Elizabeth Stanwyck**, **Kyle Stern**, **Andrew Raim**, **Navneet C. Sushon**, and **Airong Yu**. For more information on CIRC or to request services, visit our completely re-designed website at www.umbc.edu/circ.

Kudos

- Grants awarded: **Dr. Bimal Sinha** has been awarded a contract from *ORISE (Oak Ridge Institute in Science & Education)*, **Dr. Thomas Matthew** has been awarded a contract from *Merck & Company Inc.* **Dr. Jinglai Shen** awarded a new grant from the *National Science Foundation*. **Dr. John Zweck** is the Co-PI on a new *JHU-APL grant*.
- **Dr. Yvonne Huang** initiated a new joint Biostatistics course with University of Maryland School of Medicine, Cancer Center.



- **Dr. Anindya Roy** (picture on right) was named Associate editor for the *Journal of the American Statistical Association (JASA)*.
- **Dr. Susan E. Minkoff** (picture on left) has been named the chair of the membership *Committee for the Society for Industrial and Applied Mathematics (SIAM)* which programs and services that attract member to SIAM.



- The Mathematics Majors **Michael Powers**, **Kathryn Cronise**, **Erika Koenig**, **Elizabeth Levitt**, **Allen Welch** have been nominated by the Office of Institutional Advancement Corporate Relations Office for the prestigious T. Rowe Price Scholarship. Students from all universities around country apply for this scholarship.
- Graduated **Clifford Bridges** a Mathematics Major, finished 7th in the triple jump at the America East Championships. He was named to the Indoor All Academic team, as well as being named a **Matt Skalsky** Outstanding Scholar Athlete at this year's Varsity Awards Banquet.