
News@Math&Stat

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Welcome by Department Chair Nagaraj K. Neerchal

It is a pleasure to present to you a quick look at some major events of the department. The major news item in this issue is the recognition of our colleague **Professor Thomas Mathew** as the Presidential Research Professor for 2008-2011. We are one of only two departments on the campus to have received three Presidential Awards since they were established. We are partnering with the publisher McGraw-Hill to host the event “Undergraduate Years and Beyond,” the first of which was held on October 20, 2007. Also, we are currently planning another *Probability and Statistics Day* on April 25-26, 2008. Please check the department website periodically for updates. Several readers sent acknowledgments and congratulatory notes as responses to items in our previous newsletters! Thank you very much, and we are always happy to hear from more of you.



Thomas Mathew Named Presidential Research Professor

Professor Thomas Mathew has been designated Presidential Research Professor at UMBC for the three-year term July 1, 2007-June 30, 2011. The award was presented by President Freeman A. Hrabowski and Provost Arthur T. Johnson at a special ceremony in the UC Ballroom on April 9, 2008. Professor Mathew is the second recipient of the award in the department; Professor **Bimal Sinha** being the first recipient (in the year 2000). In addition, Professor **Muddappa S. Gowda** is the recipient of the Presidential Teaching Professor award, also in the year 2000.



News from the Undergraduate Program by Undergraduate Coordinator Yen-Mow Lynn

The department has introduced hybrid modes of delivery into some of the introductory courses. Stat 121 (Statistics for Social Sciences) and Stat 351 (Statistics for Business and Economics) are now taught in both traditional face-to-face classes as well as hybrid modes where the lectures are uploaded onto a secure website which can be viewed by students at their convenience. In addition, students meet in a discussion section once a week. In Fall 2007, we conducted a pilot study in Stat 121 to evaluate the effectiveness of the hybrid mode of delivery. Several face-to-face sections and a hybrid section were taught. Students were given a common final. Following this successful study, we have increased the capacity of the hybrid section to meet the growing demand for this mode of delivery. A hybrid section for Stat 351, another very popular course, is being piloted in this semester. The department is right now planning to introduce a few sections of hybrid mode of delivery in Math 106 (Introduction to Algebra) for Fall 2008



News from the Graduate Program by Graduate Director Muddappa S. Gowda

Greetings from the Graduate Program Director. Our banner year 2007 ended in December with 20 graduations in both mathematics and statistics (see www.math.umbc.edu/resources/alumni.htm for a complete list). We congratulate December 2007 graduates **Feng Li** (Statistics PhD, advisor Dr. Rukhin) and **Mark Tribett** (Statistics MS) and wish them luck in their endeavors. In May 2008, we are expecting **Filiz Gurtuna**, **Ana Maria Soane**, and **Dan Wang** to graduate with a PhD in Mathematics, and **Joseph Warfield** with a PhD in Statistics. We are also expecting **Shi Li**, **Yushu Yang**, **Bruno Kamdem** to receive their MS in Mathematics and **Jia Liu**, **Willy Weng**, and **Gaurav Sharma** to receive their masters in Statistics. Advance congratulations to all of them. I am happy to say that **Justin Newcomer**, **Adrian Vancea**, and **Noemi Zakarias** have successfully passed their oral exams and have now become candidates for the PhD degree. Our admissions committee is reviewing numerous applications for our graduate program and we hope to attract top-notch domestic and international students.



News from the MSGSA by President Martin Klein

The Mathematics and Statistics Graduate Student Association (MSGSA) held successful elections last November in order to select the officers for 2008. Elected were (clockwise starting at the top left) **Alen Agheksanterian** (Vice President and GSA Senator for Applied Mathematics), **Martin Klein** (President), **Bruno Kamdem** (Secretary), **Elizabeth Stanwyck** (Treasurer), and **Gaurav Sharma** (GSA Senator for Statistics). With the help of the former president, **Justin Newcomer**, the MSGSA now has an official webpage at orgs.umbc.edu/msgsa. The webpage provides information about the MSGSA and we are working to include useful information for the graduate students in our department such as important forms and deadlines. Last December the MSGSA helped organize a successful holiday party for the department and we have a couple social events coming up this semester.



News from the Council of Majors and Pi Mu Epsilon by President Kristel Ehrhardt

Pi Mu Epsilon and the Math Council of Majors (COM) are in the middle of a wonderful Spring semester. We started off with a welcoming pizza party that was well received. The Mathematics COM has continued the tradition of movie nights every other week. On Friday, March 14, we hosted Pi Day, along with the Philosophy and Physics Councils of Majors. We had a wonderful speaker, Dr. Jeff Bub, from College Park and ate a lot of pizza, liquid nitrogen ice cream, and pie. We also hope to travel to the museums of DC in April with the Physics Department and look forward to having an end of the year cookout. Please see our bulletin board outside of Dr. Kogan's and Dr. Bell's offices for any upcoming activities. The PME and Math COM officers are pictured to the right (clockwise starting at the top left): PME President **Kristel Ehrhardt**, COM President **John Stevenson**, Secretary **Alexandra Menton**, Vice President **Michelle Stegman**, and Treasurer **Kimberly Shurupoff**.



Undergraduate Years & Beyond: A Joint UMBC Mathematics & Statistics and McGraw-Hill Workshop

The Department of Mathematics and Statistics and the McGraw-Hill Publishing Company hosted a one day workshop “Undergraduate Years and Beyond” on the use of technology in undergraduate teaching and careers in Mathematics and Statistics, in the seventh floor of the Library on Saturday, October 20, 2007. The main goal of this special day was to promote the use of technology in the classroom to improve student outcomes in general and empower the soon to be graduate mathematics and statistics majors with the knowledge of careers in Mathematics and Statistics. The keynote addresses by a power user of technology in the classroom, Alison Ahlgren, University of Illinois at Urbana-Champaign, and by a digital technology expert from McGraw-Hill, Jeff Huettman, Director of Digital Products, McGraw-Hill, were targeted at both new and veteran users of technology in the classroom.



The panel discussion on careers included panelists who regularly interview candidates for positions in government, industry, and academia, including Dr. Anthony Kearsely, Mathematician, National Institute for Standards and Technology, Prof. Kathleen Hoffman, Mathematics and Statistics, UMBC, Dr. Barry Nussbaum, Chief Statistician, Environmental Protection Agency, Dr. Kevin Drummey, Technical Director, Enterprise Operations Research, Modeling and Simulation Group, National Security Agency

A special feature of this conference were poster presentations by selected faculty from the Department of Mathematics and Statistics of UMBC on their current and ongoing research projects. The visiting faculty and students had plenty of time to talk to the presenters one-on-one and explore possible connections for undergraduate research opportunities. The department plans to hold this event every Fall semester as part of its increased effort towards graduate student recruiting. Please check our web site soon for the details of second of this series in October 2008.



Founding UMBC Faculty Richard C. Roberts Remembered

Professor Emeritus Richard C. “Dick” Roberts passed away on March 27, 2008. Dick came to UMBC in 1966 as founding faculty member to serve as the chair of the Division of Mathematics and Physics. As chair of the Mathematics department until 1985, he oversaw its early build-up and growth by hiring many of the current senior faculty members of the department. Among Dick’s most profound contributions was the establishment of the graduate program in Applied Mathematics, UMBC's first Ph.D. program, which graduated UMBC's first-ever Ph.D. in 1975, and the Statistics graduate program in 1985. Even after his retirement in 1991, Dick continued his interest in the campus by attending many events, including the official 40th anniversary celebration in September 2006 and a book reading by Manil Suri as recently as February of this year.



CIRC Receives Inaugural Kauffman Foundation Innovation Grant

The Center for Interdisciplinary Research and Consulting (CIRC) in the Department of Mathematics and Statistics is among the inaugural recipients of the Kauffman Foundation Innovation Grants just awarded through the Alex. Brown Center for Entrepreneurship at UMBC (www.umbc.edu/entrepreneurship/innovation_grants.html). The \$5,000 support will be used to develop a marketing plan and associated material to expand CIRC's client base off campus, including local industry and government agencies. CIRC's mission is to make the expertise of the department's faculty and students available to the community and to train graduate students in Applied Mathematics and Statistics in skills necessary for interdisciplinary work and research. On campus, CIRC continued its cooperation with the Office of Information Technology by offering weekly hands-on software workshops in instructional computer labs. This semester, an advance workshop on optimization methods in MATLAB was created and taught by **Shiming Yang**, Mathematics RA for Spring 2008. Off campus, CIRC provided



a workshop on COMSOL Multiphysics at the U.S. Naval Academy. CIRC's consulting work included numerous interesting projects, many involving graduate students' research from a large variety of departments on campus. And finally, this year's winner of the CIRC Consultant of the Year Award is Statistics consultant and Stat 750 student **Yan Zhuang**. Shown with the Directors **Nagaraj K. Neerchal** and **Matthias K. Gobbert** are the CIRC affiliated students in Spring 2008: **Willy Weng**, **Yukun Wu**, **Shiming Yang**, **Yan Zhuang**, **Justin Newcomer**, and **Mathangi Gopalakrishnan**. For more information on CIRC or to request services, visit our webpage at www.umbc.edu/circ.

Kudos

- The *2nd Annual Probability and Statistics Day at UMBC* on April 25-26, 2008 is again supported by a grant from the National Security Agency; for program information, visit www.umbc.edu/circ/hosting/ProbStatDay2008.
- Grants recently awarded to faculty in the department include National Science Foundation to **Florian Potra**, an Environmental Protection Agency fellowship for **Bimal Sinha**, and a contract from Lawrence Berkeley National Laboratory to **Susan E. Minkoff**.
- This semester **Professor Kathleen Hoffman** offered a new First-Year Seminar addressing topics on the interface between the quantitative and life sciences, following her sabbatical in the Biology department at College Park supported by a grant from the National Science Foundation.
- Physics and Mathematics double major **Philip Graff** is the second UMBC student in the past two years to win the Gates Cambridge Scholarship to pursue graduate studies at Cambridge University.
- This semester's recipients of departmental awards include **Kristel Ehrhardt** and **John Stevenson** for *Outstanding Department Service*, **Kristel Ehrhardt** and **Clare Wickman** as *Outstanding Undergraduate Teaching Assistants*, **Matthew D. Frazier** as *Outstanding Graduate Teaching Assistant*, **Elizabeth Stanwyck** as *Outstanding Graduate Student Instructor*, and **Yan Zhuang** as *CIRC Consultant of the Year*. We also congratulate *Outstanding Seniors* **Fareha Ali**, **Philip Graff**, **Marc Herrman**, **Austin Rochford**, **John Stevenson**, and **Clare Wickman**, and *Outstanding Junior* **Michael Lombardi**.
- The Undergraduate Research Award scholars for the next academic year 2008-09 include Mathematics major **Michael Reid** (mentor Matthias K. Gobbert).
- **Professor Manil Suri** continues to pursue his passion for writing and has just published his second novel entitled "*The Age of Shiva*," after his bestselling first novel "*The Death of Vishnu*" in 2001.