
News@Math&Stat

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Welcome by Department Chair Nagaraj K. Neerchal

Welcome to the Spring 2009 issue of our department's newsletter! In this issue we introduce to you our newest faculty **Do-Hwan Park**. We just completed a successful search for another applied mathematics faculty who will be starting in Fall 2009. Congratulations to **Thomas Mathew** on the publication of his second book and **Bonny Tighe** on the campus wide recognition of her teaching. In this newsletter we also report on the very successful *3rd Annual Probability & Statistics Day at UMBC* held in April. I invite you to read the newsletter and look up the relevant links on our department webpage. Of course, we would love to hear from you!



Bonny Tighe Wins Inaugural CNMS Teaching Award

Bonny Tighe, Senior Lecturer in the Department of Mathematics and Statistics, is the winner of the first *Carl Weber Excellence in Science and Mathematics Teaching Award* presented by the College of Natural and Mathematical Sciences (CNMS). The award is given in honor of, **Prof. Carl Weber**, one of the founding members of the Department of Biological Sciences in CNMS. We are very excited about this distinguished recognition of our colleague Bonny Tighe for her long-standing commitment to the students of UMBC!



New Faculty: Do-Hwan Park

Dr. Do-Hwan Park earned her Ph.D. degree from University of Missouri-Columbia in 2005. After three years as an assistant professor at the University of Nevada-Reno, she joined UMBC in January 2009. Her research area includes Survival Analysis and Longitudinal Analysis, especially, developing semiparametric and nonparametric methods for the analysis of longitudinal data (repeated measurements over time).



News from the SIAM Student Chapter by President Alen Agheksanterian

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Founded in Fall 2008, the SIAM Student chapter is closing a successful first year. We hosted sessions on how to pick an advisor/research direction and on writing a CV and cover-letters. Many graduate students found these professional development sessions helpful. **Elizabeth Stanwyck**, one of our senior graduate students says: "While classes and lectures and seminars give students a strong theoretical and applied background in their fields, it is also important for students to master the professional skills they will need to find and keep employment in their areas of research." Also, our chapter organized a trip to the Joint Mathematics Meetings in Washington, DC in January. We thank SIAM and the GSA for providing funding for the chapter activities. The chapter officers for 2009-2010 are **Alen Agheksanterian** (President), **Noemi Zakarias** (Vice President), **Kristel Ehrhardt** (Secretary), **Morgin Jones** (Treasurer), and **Philip Nelson** (Webmaster). The chapter faculty advisor is Dr. Susan Minkoff.

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

Greetings from the Graduate Program Directors. We congratulate December 2008 graduates **Justin Newcomer** and **Joseph Warfield** (Ph.D., Statistics), **Guan Wang** and **Shiming Yang** (M.S., Applied Mathematics), **Hui Huang** and **Dihua Xu** (M.S., Statistics). Also, **Hui Huang** and **Gaurav Sharma** successfully passed their oral exams and have now become candidates for the Ph.D. degree in Statistics. We congratulate **Martin Klein** for his Outstanding Presentation Award at the annual Graduate Research Conference. **Melania Moldovan** was named Outstanding Graduate Student in Applied Mathematics and **Gaurav Sharma** was named the same in Statistics. Also, **Hamza Bahadur** and **Deepak Ayyala** were recognized as Master Graduate Teaching Assistants. In March, the department hosted its first UMBC visit day for potential graduate students and it was a great success. We have admitted many new students for the Fall and are looking forward to welcoming them into the program. The newly instated Biostatistics graduate tracks in Statistics Ph.D. and Statistics M.S., joint ventures with the downtown campus, are a huge success, having attracted many new applications. We are anticipating an exciting and productive academic year.



News from the Undergraduate Program by Undergraduate Advisor Yoon Song

In May 2009, 21 students are graduating with a B.S. and 9 students with a B.A. in Mathematics, 3 students with a B.S. in Statistics, and 12 students with a Mathematics minor and 2 students with Statistics minor. There will be two students graduating with Departmental Honors: **Michael Reid** (Senior Thesis advisor Dr. M. Gobbert) and **Michelle Danaher** (Senior Thesis advisor Dr. A. Roy). **Austin Rochford** (BS in Mathematics, August 2008, Thesis advisor Dr. J. Zweck) who went to Ph.D. program in Mathematics, University of Illinois at Urbana Champaign, was nominated as May commencement's valedictorian candidate from our department. Currently, we have 303 students in Mathematics (including 76 minors) and 18 students in Statistics (including 7 minors).



News from the MSGSA by President Gaurav Sharma

The Mathematics and Statistics Graduate Student Association (MSGSA) entered the third year as a recognized UMBC community. The main purposes of the MSGSA are to represent the graduate students in the Department of Mathematics and Statistics and act as liaison between students and administration in the department. The MSGSA now has the webpage (orgs.umbc.edu/msgsa) which not only provides information about the organization but also has useful links for current graduate students like sample webpage template and LaTeX Ph.D. dissertation template. Last December the MSGSA helped organize a successful holiday party for the department and we have a couple of more social events coming up this semester. The current officers for 2009 are **Gaurav Sharma** (President), **Deepak Nag 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 Mathematics Council of Majors and the Pi Mu Epsilon Honors Society celebrated Pi Day in March with the Society of Physics Students and Sigma Pi Sigma Honors Society. The lecture was given by **Dr. Sommer Gentry**, Assistant Professor at the U.S. Naval Academy, and discussed an optimization algorithm for kidney matching. The officers this semester are **Aaron Pearlman** (President), **Michelle Stegman** (Vice President), and **Kimberly Shurupoff** (Treasurer). The Pi Mu Epsilon Honors Society induct 12 new members into the society this year.





3rd Annual Probability & Statistics Day at UMBC

The Department of Mathematics and Statistics at UMBC organized its *3rd Annual Probability & Statistics Day at UMBC* during April 24-25, 2009. Organized by the statistics faculty and chaired by **Dr. Bimal Sinha** (Presidential Research Professor), the conference began on Friday afternoon with a workshop on *Modern Multiple Testing* offered by **Professor Sanat Sarkar**, a distinguished faculty at Temple University.

Saturday's conference session started with a warm welcome by **Dr. Philip Rous**, the Dean of the College of Natural and Mathematical Sciences, and by **Dr. Nagaraj Neerchal**, Chair of the Department of Mathematics and Statistics, and some pertinent observations by **Dr. Bimal Sinha**, Conference Chair. The morning session featured two plenary lectures by **Professor Barry Arnold** of the University of California at Riverside and **Professor Loveday Conquest** of the University of Washington. This was followed by Graduate Students' Oral Presentations as well as presentations by several excellent national and international speakers: **Professor Ayan Basu** (Pennsylvania State University and Indian Statistical Institute), **Professor Naveen Bansal** (Marquette University), **Professor Eric Slud** (UMCP; *photo below in conversation with Dr. Anindya Roy*), **Professor Bikas Sinha** (Indian Statistical Institute).

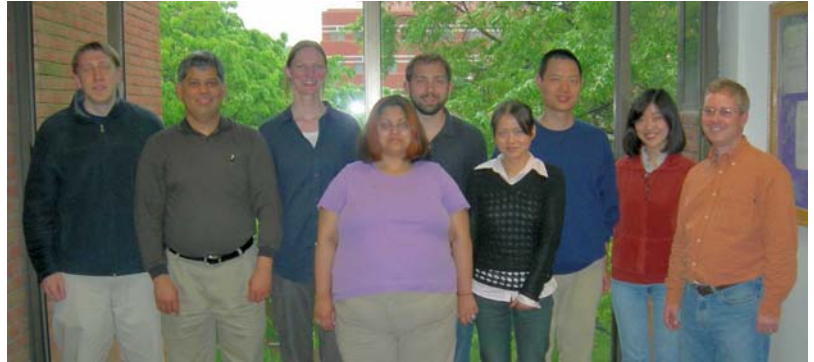
After a lunch break and a photo session, the afternoon session started with the third plenary lecture by **Dr. Scott Patterson** of Wyeth Research & Development, followed by three parallel sessions consisting of 1) presentations by several UMBC alumni (**Nabendu Pal, Michael Baron, Lanju Zhang, Santosh Sutradhar**), 2) Biostatistics (**Dr. Karabi Sinha, Dr. Nilanjan Chatterjee, Dr. Elizabeth Stuart, Dr. Mahlet Tedesse**), and 3) Probability/Multivariate Analysis/Design (**Dr. James Hung, Dr. Youngmi Hur, Dr. Moustapha Pemy, Dr. Barry Bodt, Dr. Jim Spall**). As in the past years, a special attraction of the Probability & Statistics Day was **oral and poster presentations by graduate students** and recognition of **best oral and poster** presenters through cash awards and certificates. The winners of the awards are **Martin Klein, Elizabeth Stanwyck, Dihua Xu, Gaurav Sharma, Erum Marfani, and Xiao Dong**.

The conference formally ended with a summary of the presentation highlights by **Professor Sanat Sarkar** and a highly entertaining dinner speech by **Dr. Ronald Wasserstein**, Executive Director of the American Statistical Association (ASA). This conference was primarily funded by **National Security Agency** with some limited financial assistance from UMBC and the Maryland Chapter of the ASA.



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 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, expanded this semester by a seminar on the free statistical software package R. Additionally, CIRC hosted a well-attended workshop on COMSOL Multiphysics offered by staff from COMSOL on campus. To further extend its client base off campus in industry and government agencies, CIRC also completed the development of new marketing material, originally funded in 2008 by a Kauffman Foundation Innovation Grant awarded through the Alex. Brown Center for Entrepreneurship at UMBC. The students involved with CIRC this semester are **Aaron Churchill**, **Elizabeth Stanwyck**, **Andrew Raim**, **Yukun Wu**, **Navneet C. Sushon**, and **Xiaoyu Dong**, and **Airong Yu**. This year's award for the CIRC Consultant of the Year goes to **Yukun Wu**. For more information on CIRC or to request services, visit our webpage at www.umbc.edu/circ.



Kudos

- Congratulations all awardees from our department at the **Fourth Annual CNMS Student Recognition Day** of the College of Natural and Mathematical Sciences (CNMS)! Outstanding Graduating Senior in Mathematics: **Clifford Bridges** and **Erika Nesvold**, Outstanding Graduating Senior in Statistics: **Michelle Danaher**, Outstanding Seniors in Mathematics: **Ryan Goldenberg**, **William Hardesty**, **Subhash Paruchuru**, **Geoffrey Clapp**, and **Alexandria Volkening**, Outstanding Junior in Mathematics: **Sergey Erenburg**, Outstanding Graduate Teaching Assistant: **Ioana Cipcigan**, **Matthew Frazier**, and **Nicole Wood**, Outstanding Graduate Research in Statistics: **Gaurav Sharma** (Advisor Dr. T. Mathew), and Outstanding Graduate Research in Mathematics: **Melania Moldovan** (for work leading already to three research publications, Advisor Dr. M. Gowda)
- The department's team of **Subhash Paruchuru**, **Ryan Goldenberg**, and **Erika Nesvold** placed 42 out of over 500 teams nationally in the prestigious **Putnam Mathematics Competition** sponsored by the Mathematical Association of America.
- Other recognitions by students in the department include **Martin Klein** winning the Best Speaker Award at the **Graduate Research Conference** on April 24, 2009 and **Yukun Wu** for the **CIRC Consultant of the Year**.
- For his exceptional service to the UMBC chapter of the Society for Industrial and Applied Mathematics (SIAM), **Alen Agheksanterian** was recognized by a **SIAM Student Chapter Certificate of Recognition**.
- Four students from the department presented at the **Undergraduate Research and Creative Achievement Day** (URCAD) on April 22, 2009: **Geoffrey Clapp** (mentor Dr. K. Hoffman), **Alison Ebaugh** (mentor Dr. J. Bell), **Michael Reid** (mentor Dr. M. Gobbert), and **Immanuel Williams** (mentor Dr. N. Eddington, UMB). Also announced at the URCAD were next year's winners of **Undergraduate Research Awards**, which include from our department **Geoffrey Clapp** working with Dr. Kathleen Hoffman.
- The **3rd Annual Probability & Statistics Day at UMBC** was again supported by a grant from the **National Security Agency**. The department also received three DRIF awards: Summer Faculty Fellowships for **Dr. Bradford Peercy** and **Dr. Do-Hwan Park**, and a SRAIS for **Dr. Xiao Wang** on a project in collaboration with **Dr. Jinglai Shen** and **Dr. Hong-Bin Fang** at UMB.
- **Dr. Thomas Mathew**, Professor of Statistics, published his second book "Statistical Tolerance Regions: Theory, Applications and Computation" (John Wiley & Sons).

