



# UMKC RooMath News

*Department of Mathematics & Statistics Newsletter*

<http://cas.umkc.edu/Mathematics>

## News about our department

Volume 4, Issue 1

2010 & 2011

**26 January 2010:** Dr. Jie Chen has been awarded a research grant by the **Children's Mercy Hospitals and Clinics (CMHC) of Kansas City** to collaborate with the PI, Dr. Douglas Bittel, a geneticist of CMHC for a project funded by the Kansas City Area Life Science Research Institute from 1 December 2009 to 30 November 2010.

**30 August 2010:** We are pleased to welcome this Fall to our department a new **Mathematician, Ian Besse**, as an **Assistant Professor**, and a new **Statistician Tom Fisher** also as an **Assistant Professor**.

**22 & 28 October 2010:** Emeritus Professor **G. Phil Barker** delivered two invited talks, entitled **Graphs and Cone-Preserving Maps** and **Lattices of Faces of a Finite-Dimensional Cone** at a workshop held in the **Istanbul Center for Mathematical Sciences of Bogazici University in Turkey**. This workshop was sponsored by the Scientific and Technological Research Council of Turkey (TUBITAK).

**18 January 2011:** We learn that statistician Yong Zeng received a **UM System Research Board grant** for \$24,700, titled "**Statistical Inference for Marked Point Processes and Related Topics**".

**9 May 2011:** We hear that Dr. Liana Segal has been promoted to **Associate Professor** with tenure, and Dr. Noah Rhee has been promoted to **Professor**, both starting September 1. Congratulations, Liana and Noah!

**11 May 2011:** Drs. Jie Chen, Tom Fisher, and Yong Zeng hosted the **Kearney High School AP Statistics class field trip** to visit our department and the UMKC campus. During the visit, Drs. Chen, Fisher, and Zeng shared their experiences with the high school students about what and how one can advance his or her career in Statistics.

**16 May 2011:** We learn that statistician **Dr. Tom Fisher** has received a research grant from the **University of Missouri System Research Board (UMRB)** for his project titled "**New Multivariate Techniques in Time Series Analysis and Forecast**".

**August 2011:** Assistant Professor **Ian Besse** and full-time Lecturer **Rebecca Roberts** of our Department have worked diligently to **redesign Math 110 College Algebra** in response to the **Missouri Course Redesign Initiative**. The Course Redesign proposal was selected by the National Center for Academic Transformation (NCAT) this Summer 2011, and course redesign effort has been supported by the course redesign team, led by Dr. Ian Besse (with other members from the entire university: **Rebecca**

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**Roberts, Jie Chen, Rita Barger, Molly Mead, Cindy Amyot, Andy Goodenow, and Cindy Pemberton**). The redesigned course will be offered in Spring 2012 by Rebecca Roberts as a pilot course and the full implementation of the redesigned Math 110 will be offered by Ian Besse in Fall 2012.

**August 2011:** Dr. Liana Segal has been awarded two separate research grants. The **first grant** is from the **Simons Foundation "Simons Collaboration Grants for Mathematicians"** program for **5 years at \$7,000 annually**, to be used for travel and inviting collaborators. [However, she will only be able to keep it for one year, since it is incompatible with federal funding - see below.] The **second grant** is for 2011-2014 from the **National Science Foundation (NSF)** in the amount of **\$85,843** for her proposal "**Homological Behavior of Modules over Commutative Local Rings**".

**1 August 2011:** Dr. Eric Hall will be spending most of the Fall 2011 semester at the **University of the Aegean in Greece, on the island of Samos**, working with colleagues **Kyriakos Keremedis and Eleftherios Tachtsis** on research on ultrafilters and other areas of set theory. Eric will also visit **Saharon Shelah in Jerusalem**, working on models of ZFA set theory without the axiom of choice.

**30 August 2011:** We are pleased to welcome

this Fall to our department **three new non-tenure-track faculty as Lecturers**: Naeem Ahmad, Swati DebRoy, and Stephanie Van Rhein. Follow their links to read about their strong and very different backgrounds.

**28 October 2011:** We hold our first "**Fall Math Open**" Recruitment/Retention Event, 4:30-6:30 pm at the Chancellor's Residence. See Photos and Flyer. **Students** in undergraduate mathematics and statistics classes at UMKC from Math 210 Calculus I on up were invited. Events included food, door prizes, a career area, a math contest, and a demonstration of how to carve a pumpkin into a dodecahedron.

## News about Student-Related Matters: talks, awards, publications, gatherings, mathematics competitions, and so on.

**15 January 2010:** Our graduate student, **Danna Zhang**, is currently a GRA (Graduate Research Assistant) for Dr. Jie Chen, funded by Dr. Chen's UMRB (University of Missouri Research Board) research grant.

**1 February 2010:** Our graduate student, **Xue Bai**, is currently a GRA (Graduate Research Assistant) for Dr. Jie Chen, funded by Dr. Chen's CMHC (Children's Mercy Hospitals and Clinics) of Kansas City research grant.

**19 April 2010:** Today our M.S. in Mathematics GTA Julie McKeague was awarded a **2009-2010 Graduate Teaching Assistant Superior Teaching Award** at the School of Graduate Studies 21<sup>st</sup> Annual Awards Celebration. Hers is one of just five such awards given in the College of Arts and Sciences. Congratulations, Julie! [Twice before, on 4 May 2006, our then GTA **Breanne Volkerding**, and on 22 April 2008, our then GTA **Samantha Reynolds** also won the same award.] [See picture below; Left-to-right: mini-McKeague, Julie, and Dr. Chen]



**20 April 2010:** We hear the good news that undergraduate mathematics majors **Nicholas Ball**, and **Jenny Nielsen** and 2009 graduating senior **Brad Fulk** are **finalists** for the seventh annual HOMSIGMAA (History of Mathematics Special Interest Group of the Mathematical Association of America) contest for papers

written in History of Mathematics courses across the country. Congratulations, all! In 2008, one of our department majors was a finalist. In 2006, three of our department majors were finalists, and one won first place. We also won (or co-won) first place in both 2005 and 2004. Nick's paper is titled "**Getting to the Root of the Problem: An Introduction to Fibonacci's Method of Finding Square Roots of Integers,**" while Jenny's is titled "**The Heart is a Dust Board: Abu'l Wafa Al-Buzjani, Dissection, Construction, and the Dialog Between Art and Mathematics in Medieval Islamic Culture,**" and lastly, Brad's is titled "**Adolphe Quetelet: An Analysis of His Research on the Propensity for Crime at Different Ages**". Nick and Jenny's papers were written this Spring 2010 for Math 464 WI (History of Mathematics, Writing Intensive). Brad Fulk's paper was written in Spring 2009 for the same course.

**5 May 2010:** Hurrah! Undergraduate mathematics major **Jenny Nielsen** is one of the three first place co-winners of the seventh annual HOMSIGMAA (History of Mathematics Special Interest Group of the Mathematical Association of America) contest for papers written in History of Mathematics courses across the country! Congratulations, Jenny! Her paper is posted on both the HOMSIGMAA web site, and the Convergence web site. Take a look! This year, 2010, we had three UMKC finalists, in 2008 we had one, in 2006 we had three finalists and one first place winner, and in both 2005 and 2004, we won (or co-won) first place. Jenny's winning paper is titled "**The Heart is a Dust Board: Abu'l Wafa Al-Buzjani, Dissection, Construction, and the Dialog Between Art and Mathematics in Medieval Islamic Culture.**" Jenny

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will receive an MAA student membership and some MAA books provided by HOMSIGMAA, a complimentary CSHPM (Canadian Society for the History and Philosophy of Mathematics) membership, and books donated by Johns Hopkins University Press. Jenny's paper was written this Spring 2010 for Math 464 WI (History of Mathematics, Writing Intensive).

**7 May 2010:** Undergraduate mathematics majors **Tracey Trupka** and **Tom Scott** graduate with the distinction of Departmental Honors. Congratulations, both! Tracey will soon graduate from UMKC's six-year medical school program, and Tom will become a graduate student in Physics at the University of Nebraska in the Fall.

**June 2010:** We hear the good news that the Honors Undergraduate Journal *Lucerna* has accepted for publication in the Fall 2010 Volume 5, an expository mathematics paper written by Mathematics major **Nicholas Ball** titled "**Getting to the Root of the Problem: An Introduction to Fibonacci's Method of Finding Square Roots of Integers**". Congratulations Nick! The paper was written during Spring 2010 for Math 464 WI (History of Mathematics, Writing Intensive).

**26 & 28 July 2010:** Over these days, we participated in the third IUE (**Institute for Urban Education Summer College Immersion Program (SCIP)**) held on campus for 16 upcoming IUE students starting as Freshmen this Fall. A faculty member presented a mathematics lecture on July 26, and then spoke again to the students on July 28 about the importance of Elementary and Middle School teachers learning mathematics well, and discussed our department Rough Guide to Surviving Mathematics Classes.

**25 August 2010:** We hear the good news that undergraduate mathematics major **Jenny Nielsen** has won the **Advanced Category Essay prize** in the UMKC Ilus W. Davis Writing Competition, and her expository paper "**The Heart is a Dust Board: Abu'l Wafa Al-Buzjani, Dissection, Construction, and the Dialog Between Art and Mathematics in Medieval Islamic Culture**" will be published in the UMKC Fall 2010 *Sosland Journal*. The paper was written during Spring 2010 for Math 464 WI (History of Mathematics, Writing Intensive).

**26 October 2010:** Mathematics major **Jenny Nielsen** receives her **Advanced Category Essay prize** in the UMKC Ilus W. Davis Writing Competition at the **Sosland Celebration of Writing** in the University Center, for her expository paper. [See 25 August 2010 above.]

**25 November 2010:** Yong Zeng organized 15 of his Stat 235 students in teams of 5 to once again count the Plaza Lighting Ceremony crowd. Their official count was 21,096. See the Christopher Hearne article Plaza Lighting Attendance Plummets. See the **3 December 2003** listing for the last time **Dr. Zeng** did this class project.

**27 April 2011:** Today our M.S. in Mathematics GTA **Cam Buie** was awarded a **2010-2011 Graduate Teaching Assistant Superior Teaching Award** at the School of Graduate Studies 22<sup>nd</sup> Annual Awards Celebration. His is one of just five such awards given in the College of Arts and Sciences. Congratulations, Cam! [Three times before, our previous GTAs, on 19 April 2010, **Julie McKeague**, on 22 April 2008, **Samantha Reynolds**, and on 4 May 2006, **Breanne Volkerding** also won the same award.]

**23 May 2011:** Undergraduate mathematics major **Paul Stahl** is the **winner** of the eighth annual HOMSIGMAA (History of Mathematics Special Interest Group of the Mathematical Association of America) contest for papers written in History of Mathematics courses across the country! Congratulations, Paul! His paper will be posted on both the HOMSIGMAA web site, and the Convergence web site. Take a look! In addition this year, 2011, undergraduate mathematics major **Rick Hill** is one of two **runners-up**. In 2010 we had three UMKC finalists and one first place winner, in 2008 we had one finalist, in 2006 we had three finalists and one first place winner, and in both 2005 and 2004, we won (or co-won) first place. Paul's winning paper is titled "**Kepler's Development of Mathematical Astronomy.**" Rick's runner-up paper is titled "**Thomas Harriot's *Artis Analyticae Praxis* and the Roots of Modern Algebra.**" Paul will receive an MAA student membership and some MAA books provided by HOMSIGMAA, a complimentary CSHPM (Canadian Society for the History and Philosophy of Mathematics) membership, and books donated by Johns Hopkins University Press. Both Paul's and Rick's papers were written this Spring 2011 for Math 464 WI (History of Mathematics, Writing Intensive).

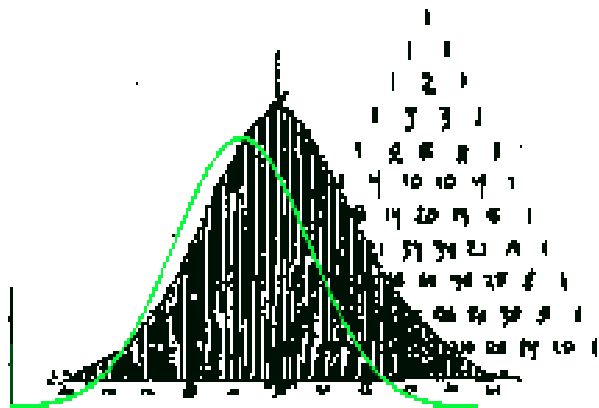
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**19 December 2011:** Undergraduate mathematics major **Abhishek Mallela** graduates with the distinction of Departmental Honors. Congratulations!

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If you would like to donate to UMKC, please visit the **UMKC Foundation** web pages at <http://www.umkc.edu/umkc-foundation/>, where you will find links to Gift Planning, the Alumni Fund, creating a scholarship, and so on. **Our department is one of the few with no department scholarships for our undergraduate majors, and you might be the first to initiate one.**

## Send Us Your News!

We're always happy to hear from you. Send a paragraph or two and let us know what you have been up to. Pictures are welcome.

Please include your name, mailing address, and email address so we can contact you.

Send to: Richard Delaware at [delawarer@umkc.edu](mailto:delawarer@umkc.edu)

or

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