



UMKC RooMath News

Department of Mathematics & Statistics Newsletter

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

Volume 4, Issue 1

Fall 2015

Greetings from the Department Chair



I hope this RooMath newsletter finds each one of you well and prosperous. You might have expected greetings from Dr. Jie Chen, who was our Chair from 2008 and worked tirelessly to build up our department in all aspects. We were sad to see her leave us for the Biostatistics and Epidemiology Department of Georgia Regents University in July 2014, but we congratulate her with our thanks for her dedicated hard work for our department and wish her all our best!

During the past year, many exciting things happened in our department. For example, student organizations such as

the *Math Club* for undergraduates and the Mathematics and Statistics Graduate Student Organization (MSGSO) were founded under faculty supervision. They organized a whole day of activities for Pi-Day (3/14/15), which received media attention from the *Kansas City Star*. Our new department website was launched before Pi-Day. Our first Annual Research Day for celebrating student and faculty research and scholarly activities took place in April, and a strong and active *UMKC Applied Mathematics Group* was established in the summer.

Drs. Xianping Li and Majid Bani-Yaghoub

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were each awarded *University of Missouri Research Board (UMRB)* grants and they jointly obtained an H&R Block funding contract. Dr. Liana Segal was awarded a *Simons Collaboration Grant for Mathematicians* and also served as an organizer in an *AMS (American Mathematical Society) MRC (Mathematics Research Communities) workshop* on Commutative Algebra in the summer. Moreover, our faculty members (continued on Page 2)

serve as Editorial Board members of international journals as coordinating editors, editors or associate editors, organized mini-symposia at professional conferences, and organized the annual *Kansas City Regional Mathematics Technology EXPO*. Our students also produced thrilling news. Our undergraduate students won awards in writing contests and the annual SEARCH Symposium, published papers, participated in the Missouri Collegiate Mathematics competition, presented at the Undergraduate Research Day at the Missouri Capitol, and won the prestigious AMS-AAAS Mass Media Fellowship. Our graduate students won the Best Poster Award at the Community of Scholars Symposium, and continued to win GTA Teaching awards.

From Fall 2014 to Spring 2015, 37 students graduated with a degree from our department and joined the ranks of UMKC Alumni. If you are one of our alumni, please stay in touch and let us know what is going on out there in the world beyond UMKC.

In view of this exciting news, I can only say that it has been my honor and privilege to serve as Chair for our active and fast growing department after my Princeton research leave in Fall 2014 (see p. 1 picture). Last but not least, I would like to take this opportunity to thank Dr. Eric Hall, who served as our interim Chair for Fall 2014 and Summer 2015, and Dr. Noah Rhee, who is serving as interim Chair for Fall 2015. I have been called away and will leave the department for a while. The department is in good hands and is going to grow continuously with your support. Stay tuned!



Photo Credit: Janet Rogers, Division of Strategic Marketing and Communications

UMKC wins multiple awards in Math Writing Contest 2014

Source: <http://info.umkc.edu/news/to-the-power-of-three/>

When looking for a common thread among Adrienne-Marie Legendre, Florence Nightingale and Gabriel Cramer, few of us would correctly call “Mathematics.” But mathematics is the tie that binds these three disparate historical figures together.

The three were topics of choice for some of Dr. Richard Delaware’s students in the History of Mathematics, Writing Intensive course at the University of Missouri-Kansas City.

Delaware’s students know that the papers and essays they write may be submitted for publication in *Lucerna*, UMKC’s annual peer-reviewed undergraduate research journal; the *Sosland Journal* of exemplary UMKC student writing in composition or writing intensive courses; or by Delaware to HOMSIGMAA, the History of Mathematics Special Interest Group of the Mathematical Association of America.

Since 2004, HOMSIGMAA has sponsored a national contest for undergraduate History of Mathematics expository papers. And if HOMSIGMAA handed out trophies, UMKC might have to build a trophy case. In the eleven years since the awards began, UMKC has landed eight first places and two seconds.

Delaware is proud of the breadth and quality of the writing by his former students and UMKC’s most recent winners: Jenna Miller, a School of Nursing student who wrote about Nightingale, the nineteenth century’s most famous nurse and social reformer; (continued on Page 3)

Paul Ayers, UMKC graduate and software engineer who examined the writings of 18th century Swiss mathematician Cramer in the original French; and Anna Riffe, profiler of 18th century French scholar Legendre.

Riffe has always liked mathematics. The more she learned, the more she enjoyed it. She has been successful in teaching mathematics to younger students, and will serve as a graduate teaching assistant for the Department of Mathematics and Statistics next semester. [Fall 2014]

Riffe took a First Place in the 2014 HOMSIGMAA awards. Her piece described the unfortunate outcome when a certain mathematician tried to prove Euclid's Fifth Postulate. Over the past 2,000 years, many bright minds have attempted and failed to prove this premise from Euclid's other four postulates. Riffe, in her paper, "The Impossible Proof: An Analysis of Adrien-Marie Legendre's Attempts to Prove Euclid's Fifth Postulate," explained why Legendre's name belongs on that list.

The other First Place winner in 2014 is Jenna Miller. Miller, a nursing major who will graduate in 2015, is attracted to medical-surgical nursing. Mathematics is what she does for fun and relaxation. When looking for possible topics, she was overjoyed to find one that combined two of her interests. Jenna wrote, "Casting Light on the Statistical Life of Florence Nightingale."

Nightingale helped change hospital care after the Crimean War, where she bemoaned the needless deaths she observed. Fearing that the statistics she gathered on such things as sanitation, food and overcrowding would be ignored for lack of impact, she developed graphics that made her findings more eloquent and captured the attention of the British government and Queen Victoria.

Cramer's Rule is named for Swiss mathematician Gabriel Cramer and is a time-saver for solving systems of linear equations. The point of Cramer's Rule is to get the one value you need efficiently. In his paper "Gabriel Cramer: Over 260 years of crushing the unknowns," Paul Ayers read and translated some of Cramer's work, applauding Cramer's wisdom that for the past 260

years has helped other mathematicians "crush the unknowns." Ayers was named a 2014 second-place co-winner.

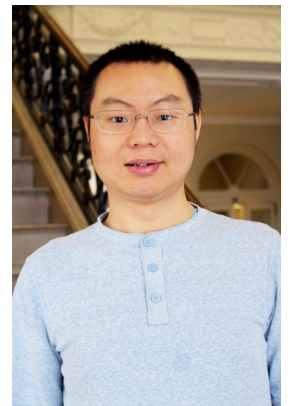
All three writers said they benefited from the process Delaware uses to track their progress, which he informally describes as "putting our heads together."

"A written outline, including your topic and a broad plan for the paper. Choose something you like," Delaware urges. "Try to use original sources as much as possible, i.e., 'Learn from the Masters'. Then, closely read each source in the context of its time. This is detective work; follow the clues, stick to the truth."

With his simple guidelines, his hands-on approach and his availability, Delaware is helping his students find success both in and out of the classroom.

Faculty Members Earn UMRB Grants

In the Fall semester of 2014, Dr. Xianping Li was awarded a grant from the University of Missouri Research Board (UMRB) to fund his project entitled "Numerical Computations in Image Processing". Dr. Li is the Principal Investigator on this project, which is funded from June 2015 to May 2016. Dr. Li has research interests in numerical analysis, scientific computing, numerical solutions of partial differential equations, anisotropic diffusion problems, mesh adaptation, image processing, parallel computing, mathematical modeling and simulation.



In Spring 2015, Dr. Majid Bani-Yaghoub was also awarded a grant from the UMRB to fund his project entitled "A new methodology to measure long-term tem-



poral changes in population interactions”. Dr. Bani-Yaghoub is the Principal Investigator on this project, which is funded from June 2015 to May 2016. Dr. Bani-Yaghoub has research interests in nonlinear analysis of delayed nonlocal reaction–diffusion equations, numerical simulation of traveling and stationary wave solutions, and mathematical modeling of infectious diseases.

Faculty Member Serves as Editor of Scientific Journals

Professor Kamel Rekab serves as a Coordinating Editor of the [Journal of Probability and Statistical Sciences](#), as an Associate Editor of [Sequential Analysis](#), in the Editorial Board of the [International Journal of Excellence in Public Sector Management](#), and in the Editorial Board of the [International Journal of Business and Management Research](#). In January 2015, he was also invited to serve as an editor of the [Biometrics and Biostatistics international Journal](#). Recent publications of professor Rekab include:



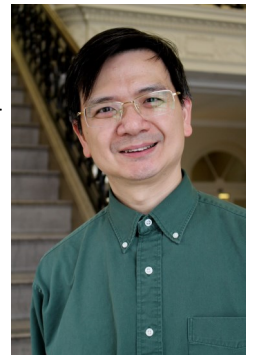
- The identification of menstrual blood in forensic samples by logistic regression modelling of miRNA expression, with J. Ballantyne, et al. *ELECTROPHORESIS*, 35(21- 22), (2014)
- Predicting the reliability of multi-build software: A model and case study with J. Whittaker, H. Thompson and W. Wu. *International Journal of Engineering Science and Innovative Technology*, 4(1), (2015)
- Second Order Optimality of Sequential Designs with Application in Software Reliability Estimation with X. Song. *Biometrics & Biostatistics International Journal*, 2(4), (2015)
- Second order optimality for estimating the product of means, with W. Wu, to appear. *Journal of Probability and Statistical Sciences* (2015)

Faculty Member Earns Simons Collaboration Grant

Dr. Liana Segal has been awarded a “Simons Collaboration Grant for Mathematicians” from the Simons Foundation for a period of 5 years. This grant provides funding for travel, collaborative visits, and also for enhancing the department’s research atmosphere.

Faculty Member Accepts an NSF Position

In Spring 2015, Dr. Zeng was offered an opportunity to serve as a rotating Statistics program director of the Division of Mathematical Sciences in the National Science Foundation (NSF) beginning October 2015. He will remain a faculty member at UMKC, but will work at NSF in Washington, D.C. The intended period for his assignment is two years. Congratulations professor Zeng!



Organizing Research on Commutative Algebra in Snowbird

The AMS (American Mathematical Society) held a “Mathematics Research Communities” (MRC) workshop in Commutative Algebra in Snowbird, Utah, from June 7 to 13, 2015. Dr. Liana Segal was one of the organizers of this event. As described by AMS, the purpose of this program is “to develop and sustain long-lasting cohorts for collaborative research projects in many areas of mathematics. Women and underrepresented minorities are especially encouraged to participate. The AMS will provide a structured program to engage and guide all participants as they start their careers.”



Organizing Symposia in SIAM Sectional Meeting in Rolla

Drs. Bani-Yaghoub and Vaidya organized a symposium titled “Current Trends in Ecology and Infectious Disease Modeling”, and Dr. Li organized a symposium titled “Recent Advances in Finite Element Methods” at the Annual Meeting of the Society for Industrial and Applied Mathematics (SIAM) April 11-12, 2015 at Missouri University of Science & Technology, Rolla, Missouri.

Organizing Mini-Symposium on Viral Infection Modeling

Dr. Naveen Vaidya was one of the organizers of the mini-symposium entitled “Advances in Viral Infection Modeling” at the SIAM Conference on Applied Dynamical Systems in Snowbird, Utah, May 17-21. The goal of the conference was a cross-fertilization of ideas from different application areas, and increased communication between the mathematicians who develop dynamical systems techniques and the applied scientists who use them.



Annual Kansas City Regional Mathematics Technology EXPO

This Fall the Kansas City Regional Mathematics Technology EXPO is once again being held at UMKC (mostly in Haag Hall) on Friday Oct. 2 and Saturday Oct. 3, 2015. Dr. Delaware is one of the main organizers of this event. The Kansas City Regional Mathematics Technology EXPO is a forum for mathematics in-



structors at both the college and secondary levels to demonstrate how they use technology successfully in their teaching, to learn about new mathematics technology, and to discuss the philosophy and future of technology in the mathematics classroom. For more information see: <http://www.kcmathtechexpo.org/>

UMKC Applied Mathematics Group : An Interdisciplinary Research Effort

The UMKC Applied Mathematics Group is a research group within the Department of Mathematics and Statistics at the University of Missouri-Kansas City, with interdisciplinary research interests in the areas of mathematical biology, scientific computations, applied analysis, and numerical linear algebra. It also provides high quality teaching and professional service to the community such as mathematical modeling, big data analysis and numerical computations. For more information please visit <http://cas.umkc.edu/mathematics/amg/>

First Annual Mathematics and Statistics Research Day at UMKC Math Department

The first annual Mathematics and Statistics Research Day (MSRD) was held at the UMKC Department of Mathematics and Statistics on Friday, April 24, 2015. MSRD is an annual event celebrating student and faculty research, creative, and scholarly activities. This event is open to the public and promotes undergraduate and graduate student research in mathematics, statistics, and their applications in various fields. All three organizers of this event are members of the UMKC Applied Mathematics Group: Drs. Majid Bani Yaghoub, Naveen K. Vaidya, Dr. Xianping Li . For more information please visit <http://b.web.umkc.edu/baniyaghoubm/msrd2015.htm>

Interview with Current Student Hugh Skidmore

Hugh Skidmore was born in 1996 in Kansas City, Kansas. He graduated from Park Hill High School in North Kansas City, leaving at #3 in his class of over 400, receiving the President's Outstanding Academic Excellence Award and the National AP Scholar Award. He is currently a junior math major at UMKC.

Why did you choose UMKC?

I wanted to stay close to my home in KCMO, and of the schools in the region, UMKC had the best programs while also being the most cost-effective. Win-win!

Why did you become a Math Major?

In high school, I always excelled at Math, but in particular I

found it compelling, challenging, and interesting as well. The major seemed like a natural fit for me. The job prospects from having a math degree are just another benefit.

You took some dual credit courses in your high school.

Tell us how that works.

I took several Advanced Placement (AP) courses in high school. Basically, you take the class, and that counts as HS credit. It prepares you to take the AP Test, which if you pass will get you credit hours for the corresponding class in college. It is cheaper, and lets you get ahead in your major. I passed all of mine, and the hours added up to 48 credit hours at UMKC! I could only take a year of school (30 hrs), but that let me start as a sophomore at UMKC.

Tell us about the UMKC Math and Stat professors.

All of them are very understanding, and more than ready to take lots of time during and after class to make sure that you fully understand each subject. They will try very hard to get you a B or an A in my experience. A lot of them have a good sense of humor about them too, which is always important when things get a little too dull or serious in the math.



Do you recommend the UMKC Math Department to obtain a degree in Mathematics?

I can't say it's better or worse than any other college program, since I haven't done them, but if I like it, why wouldn't someone else? So yeah, I'd recommend it.

From your point of view, what is the most fascinating part of mathematics?

To me, the most fascinating part of math is how you are always learning and relearning new things, as things you've learned get turned on their head, and put to use in totally different ways. How there can be 3 or 4 or more different methods to get the same answer for something. Sometimes solving an equation can feel like deconstructing a slab of marble, whittling away at a problem until the sole solution remains. That and like, you can make cool shapes on your graphing calculator. Whoa!

Where do you see yourself in the next 10 years?

Although I like to live in the "now" more than the future, hopefully I've stumbled on a bag of cash in an

(continued on Page 7)

alley, and can live comfortably for the rest of my life. More realistically, I see myself using this degree to get myself a job as an actuary or a statistician at a fairly big company or something similar.

Do you have any advice for those who are afraid of becoming a math major?

If you hate math and are afraid of it, I advise not becoming a math major. I don't think you're even considering it though. If you like math, and are considering it, but concerned it is too difficult, I wouldn't worry. Yeah, the math can get harder, but it's college. The difficulty curve seems shallower than other majors I've heard of. Try a stats course and figure out the probability you'll like being a math major!

Interview with Recent Math Graduate, Keith Robinson

Keith Robinson was born in 1988 in Kansas City, Missouri. He attended Archbishop O'Hara high school where he played basketball and was a member of the team that won a state championship. He then graduated and attended school in Florida where he majored in chemical engineering. Keith transferred to a junior college in California to play basketball collegiately. He earned a degree in business then obtained a scholarship to play in Canada where he changed his major to mathematics. After his coach left the team, he then attended UMKC in 2013 to finish his studies in mathematics. Keith graduated from UMKC in the Spring of 2015. He currently works at Cerner as a Business Consultant.



Why did you become a Math Major?

Doing mathematics has always been something I have been good at. Also a lot of people don't know that a degree in mathematics opens a lot of doors when it comes to choosing a career.

How has the Math Department inspired you?

Everyone in the UMKC Math Department is brilliant in my eyes. The professors are very helpful, the graduate students have a lot of insight and the classes are challenging, yet very interesting.

Tell us about the UMKC Math Club.

Math Club was created to provide students the opportunity to form relations with like-minded individuals. Math Club isn't closed to only math majors but to anyone with an interest in mathematics. The Math Club also gives our students the opportunity to kick back, take a break from studies and have some fun. They host events like Pi Day, movie nights, social events and the list goes on.

What is the purpose of the Convergence room (Manheim 304F)?

The Convergence is a room that gives math majors their own spot to hang out. You can catch people in there studying hard for tests or working on homework, or you can find people in The Convergence relaxing and just chatting it up.

Tell us about the Math and Stat professors and the graduate students at UMKC.

Very helpful! If ever you need a professor at UMKC it is never extremely hard to reach them and schedule a meeting to get help. I have even emailed a few professors over the weekend and would get replies back the same day. They are extremely helpful and want to see every student be successful.

From your point of view, what is the most fascinating part of mathematics?

I feel that mathematics opens your world to a different way of thinking. I like the fact that mathematics is used in other fields to solve important problems. And it is a known fact that we use math everyday whether we realize it or not.

Where do you see yourself in the next 10 years?

In 10 years I would love to be a VP with my current employer, Cerner.

Do you have any advice for those who are afraid of becoming a math major?

Mathematics can be a scary topic, but my advice is to just dive in if you have

(continued on Page 8)

a passion or even an interest in the subject. Getting a degree in math has been one of the most rewarding things that I have accomplished in my life.

How is the job market for those who have a degree in Mathematics?

It took me a couple of months to find a job but that's not bad at all. I feel that the job market for math majors is very vast. Math majors are sought after because we are problem solvers, we're analytical and good with numbers. On top of that being that we obtained a degree in math, employers tend to believe we can easily pick up on any task assigned to us because the job will most likely not be anywhere near as hard as any math class you have taken.

Do you recommend the UMKC Math Department to obtain a degree in Mathematics?

Yes I certainly do!

For more Alumni News visit: <http://d.web.umkc.edu/delawarer/MathAlumniNews.htm>

Graduate Student Receives NIMBIOS Visiting Fellowship

Graduate student Abhishek Mallela received a visiting fellowship from National Institute for Mathematical and Biological Synthesis (NIMBioS) to conduct a research project entitled "Optimal Control of HIV and TB Co-infection" at the University of Tennessee - Knoxville during August 2014. This research was conducted in collaboration with Dr. Suzanne Lenhart, the University of Tennessee, and Abhishek's faculty advisor Dr. Naveen K. Vaidya.

Congratulations, Drs. Jianfeng Meng and Qian Li !

The department would like to extend congratulations to Drs. Jianfeng Meng and Qian Li. In the Fall of 2014, Jianfeng successfully defended his dissertation entitled "Change Point Analysis of Copy Number Variants Using Next Generation Sequencing Data". Jianfeng's work was completed under the direction of Dr. Jie Chen. Following his graduation, Jianfeng accepted a biostatistician position with Pharmaceutical Product Development Inc. in Austin, TX.

Qian Li completed her IPhD in Mathematics with emphasis in Statistics and Co-discipline in Economics in summer 2015 under supervision of Dr. Yong Zeng. She

successfully defended her dissertation entitled "Generalized Multiplicative Error Models: Asymptotic Inference and Empirical Analysis". She is currently a visiting assistant professor in the Department of Mathematical Sciences at Florida Atlantic University.

Graduate Students Receive Travel Awards

Graduate student Abhishek Mallela received a travel award from the UMKC School of Graduate Studies to present his research talk entitled "Optimal Treatment Strategies for HIV-TB Co-Infected populations" during the Joint Mathematics Meeting, San Antonio, Texas, in January 2015. This was a collaborative project with Dr. Suzanne Lenhart, the University of Tennessee and Abhishek's faculty advisor Dr. Naveen K. Vaidya.

Also, graduate student Jones Mutua received a travel award from the organizers of the 5th International Conference on Mathematical Modelling and Analysis of Populations in Biological Systems (ICMA-V) to be held on October 2-4, 2015 at the University of Western Ontario, London, Ontario, Canada. Jones is going to present a poster entitled "Effects of Morphine on HIV-Specific Antibody Responses: Mathematical Models", related to the joint collaborative project with Dr. Anil Kumar, UMKC School of Pharmacy and Jones's faculty advisor Dr. Naveen K. Vaidya.

Big Congratulations to Recent Math and Stat Graduates

The Department of Mathematics and Statistics congratulates the following recent graduates with a degree in mathematics or statistics.

Spring 2014

Mary Bigham
Emma Davis
Nathan Gearhart
Cassandra Kimbrough
Anna Riffe
Hadeel Alqadi
John Braxton
Jason Dang
Kristin Everson
Jones Mutua
Kathleen Roy
Dhuha Shareef

Fall 2014

Bianca James
Aaron Ross
Michele Brentano
Bryan Couch
Rachel Crowell
Alexander Lasley
Jianfeng Meng
Leanne Marshall
David Ward
Julia Wheeler
Abdullah Alanazi
Vivian Bozikis

Spring 2015	Evan Kraviec
James Coop	Joseph Leroy
Brian Lavender	Abhishek Mallela
Ryann McIntosh	Xuan Liu
Sean Nemetz	Danielle Coronado
Keith Robinson	John Elkin
Jerome Wassel	Eric Gonzalez
Kamel Alanazi	Hassan Hussein
Mansour Alghamdi	Michael Mahoney
Colin Barker	Jenna Miller
Megan Donnelly	Brian Nguyen
Joshua Holt	Laila Awadalla

Undergraduate Student Wins UMKC SUROP Award

Undergraduate student Peter Uhl was awarded a SUROP (Summer Undergraduate Research Opportunity) grant for a project entitled "Mathematical Models for Immune Responses against HIV Infection under Drugs of Abuse". He then successfully presented a poster in the SUROP Poster Symposium on Sept. 3, 2015. Congratulations to Peter and his faculty mentor Dr. Naveen K. Vaidya!

Undergraduate Student Wins Writing Prize, Publication in the Sosland Journal

Undergraduate Amanda Kelly won the UMKC 2015 Ilus W. Davis Writing Competition in the Advanced category. Her paper "John Venn: Examining the Logic behind the 'Logic of Chance'" written for Math 464 WI, is published in the current 2015 Sosland Journal online at <https://soslandjournal.wordpress.com/current-issue/>.

Tutorial Help at Math Success Lab

For the Calculus I, II, III sequence: Math 210, 220,250, and, for Math 216, 300, 301, and 345; staffed by math majors and graduate students.

Location: Royall Hall, Room 204

Hours of Operation:

- Tuesday 4:00-7:00 pm
- Wednesday 2:00-5:15 pm
- Thursday 10:00-12:00 pm

Undergraduate Student Presents at Capitol Hill, Jefferson City, Mo

March 2015: Undergraduate student Keith Robinson presents a poster titled "Kansas City Gang Violence: A Mathematical Solution for a Troubling Problem" at the Undergraduate Research Day at the Capitol, Jefferson City. His project was funded by UMKC SEARCH and selected as one of the top 10 outstanding undergraduate research projects. Congratulations to Keith and his faculty mentor Dr. Majid Bani-Yaghoub!



Undergraduate Student Wins a First Prize at the 15th Annual SEARCH Symposium

April 2015: Undergraduate student Kyle Spencer presents a poster titled "Dynamics of Hemorrhagic Disease on White-Tailed Deer Populations in Missouri" at the 15th annual Students Engaged in Artistic and Academic Research (SEARCH) Symposium for Research and Creative Achievements in Pierson auditorium, winning First Prize in the "Physical Sciences & Mathematics" category. Congratulations to Kyle and his faculty mentor Dr. Majid Bani-Yaghoub!

Undergraduates Represent UMKC in Missouri Collegiate Mathematics Competition

Undergraduate students Kyle Spencer, Laila Awadalla, and Peter Uhl represented UMKC at the Missouri Collegiate Mathematics Competition, sponsored by the Mathematical Association of America, at Missouri University of Science and Technology in Rolla in March 2015. These students ranked 17 out of 36 which was an improvement compared to last year. Well done Laila, Kyle, and Peter!



Undergraduate Wins 2015 Math Writing Contest

Undergraduate Math Major, Samuel Patterson wins first place in the HOM-SIGMAA undergraduate writing contest. His paper is entitled "*Bernard Bolzano, a Genius Unnoticed in his Time*" written for Math 464 WI. Congratulations Sam!

Graduate Students Win GTA Excellence in Teaching Awards

The winner of the 2015 departmental GTA Excellence in Teaching Award is Megan Oldroyd. Also, Xia Song won a GTA Superior Teaching Award from the School of Graduate Studies. They both have outstanding teaching records. Congratulations to Xia and Megan!

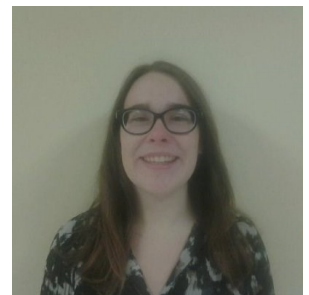
Graduate Student Wins the Best Poster Award at the Community of Scholars Symposium

During the 2015 Community of Scholars Symposium organized by the Interdisciplinary Doctoral Student Council (IDSC) and the School of Graduate Studies and held in April 23, 2015, IPhD student Jones Mutua won the best poster award in the Physical Sciences category with a \$500 prize. Jones presented a research poster from his project entitled "Modeling Effects of Drugs of Abuse on HIV-Specific Antibody Responses". Dr. Naveen Vaidya is his advisor, and this project is ongoing in collaboration with Dr. Anil Kumar from the School of Pharmacy. Congratulations to all of them!

Math Graduate is Awarded the Prestigious AMS-AAAS Mass Media Fellowship

Source: [AMS News](#)

Rachel Crowell has been awarded the 2015 AMS-AAAS Mass Media Fellowship. Rachel is a graduate of the University of Missouri-Kansas City. [Dec. 2014] The AMS will sponsor her fellowship at The Oregonian for ten weeks this summer [2015].



The Mass Media Science & Engineering Fellows program is organized by the American Association for the Advancement of Science (AAAS). This competitive program is designed to improve public understanding of science and technology by placing graduate and post-graduate science, mathematics and engineering students in media outlets nationwide. The fellows work as reporters, researchers and production assistants alongside media professionals to sharpen their communication skills and increase their understanding of the editorial process by which events and ideas become news.

Student Organizations associated with the Department of Mathematics and Statistics



The purpose of the UMKC Chess Club is to provide a friendly environment in which its members may play, instruct, and discuss chess. The Chess Club will supply chess sets and clocks for its members. It also holds at least one open tournament annually, for all interested UMKC Students and future potential students. The Chess Club is dedicated to advancing chess by offering instruction to all UMKC students and future potential students.

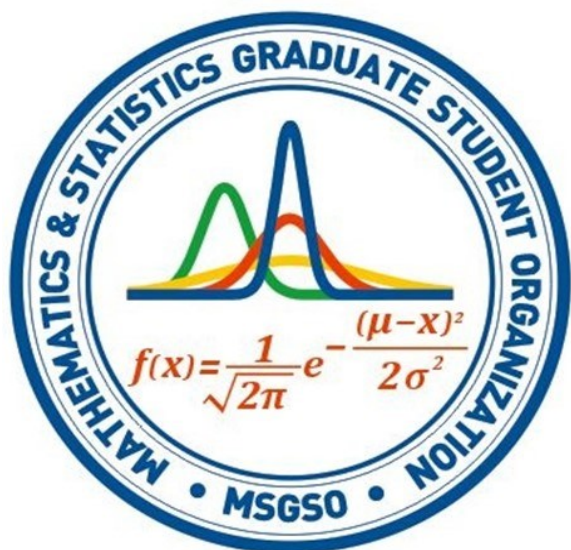
Find out Chess Club meetings and activities at: <https://roogroups.collegiatelink.net/organization/ucc/documentlibrary>



The UMKC Math Club promotes interactions between faculty and undergraduate students; provides math-related activities such as problem of the week, math movie nights, and math contests; invites math alumni and various employers to give insight into the current math job market; facilitates communication between math graduate and undergraduate students.

Location: Manheim Hall Room 304 F

You can learn about Math Club meetings and activities at <https://roogroups.collegiatelink.net/organization/umkcmc>



The purpose of MSGSO is to represent the graduate student body of the UMKC Department of Mathematics and Statistics; to provide a forum for graduate student opinion; to act as a voice for the graduate students in matters of mutual interest to graduate faculty and students; and to promote professional interest and fellowship among the graduate students.

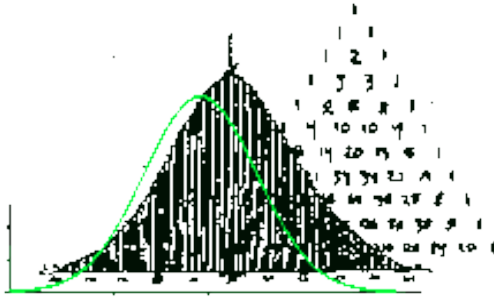
Location: Manheim Hall Room 304 F

You can learn about MSGSO meetings and activities at <https://roogroups.collegiatelink.net/organization/UMKCMMSGSO>

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 Newsletter published in Sept., 2015

Type address here or use Mail Merge
 to automatically address this
 publication to multiple recipients.



Visit our Website at <http://cas.umkc.edu/Mathematics>

Become a Member!

We encourage you to register as a member of the **UMKC Alumni Association**. Just go to the UMKC alumni website www.umkcalumni.com, click on the tab at the top of screen called "MY PROFILE/LOGON", and follow the instructions.

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

or
 RooMath News, Dept. of Mathematics & Statistics, HH206, University of Missouri-Kansas City, 5100 Rockhill Rd, Kansas City, MO 64110

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IPhD Coordinator: Dr. Noah Rhee
Undergraduate Advisor: Dr. Majid Bani-Yaghoub
College Algebra Coordinator: Dr. Bill Kalahurka
Calculus Coordinator: Dr. Liana Segal
Seminar Organizer: Dr. Xianping Li
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Math Puzzler

"Thirteen teachers are in Paradox, New York attending a math conference. When they arrive at the Enigma Hotel to check in, they are told that only 12 rooms are available. Since their school had made reservations for 13 rooms, the teachers are a bit upset that they will have to find another place to stay. As they are preparing to leave and find another hotel, the manager comes out and asks if there is a problem. When she hears of their situation she assures them that the Enigma Hotel has enough space to accommodate each teacher in his or her own room. She takes two of the teachers to room #1 and promises to come back in a few minutes and take one of them to another room. She takes the third teacher to room #2, the fourth teacher to room #3, the fifth teacher to room #4 and so on, taking the twelfth teacher to room #11. She then returns to room #1 and escorts the extra teacher waiting there to room #12. All of the teachers are now happily settled in their own rooms. Is this possible?"
 Source: AIMS Education Foundation