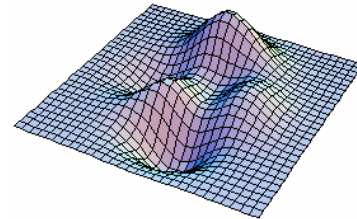
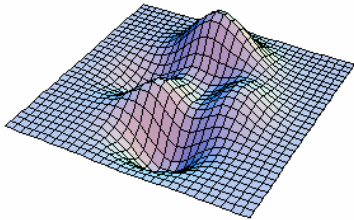


University of Wisconsin-La Crosse
Mathematics Department
Student Newsletter



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WELCOME NEW FACULTY

The Mathematics Department is welcoming four new faculty members this Fall. Three of them are new to the campus, while the fourth has been academic staff at UW-L for several years. He now begins a tenure track appointment. Here is a little about each of them, in their own words.

Dr. Abdul Elfessi: "I received a Ph.D. in Statistics from the University of Southwestern Louisiana in 1992. I spent two years teaching Math & Stat classes at USL. I came to UW-L as a visiting instructor in 1994. I was born in Benghazi, Libya (North Africa) I have 3 children, 2 girls (Aisha 12, Nadia 8), 1 boy (Zane 10). I like to play with them and help in their school work. I like to play Soccer (whenever I have free time of course), and I like to watch the NBA on NBC. My research interest is theory of point estimation and its application in life testing and reliability."

Dr. Jeff Baggett: "After growing up in Eastern Oregon, I earned a B.S. in Math at the University of Portland (Oregon) in 1990. Immediately afterward I began work on a Ph.D. in Math at Cornell University in Ithaca, NY. The past three years I have been doing research in computational fluid dynamics (computing turbulent fluid flows) at Stanford University. My research interests include computational fluid dynamics and, more generally, numerical analysis and applied mathematics. My wife, Jen, and I enjoy hiking, biking, skiing, cooking, and playing with our cat, Niebla (Spanish for "fog")."

Dr. Michelle Wagner: "I was born in Annapolis, Maryland and spent most of my life in Asheville, North Carolina (in the beautiful mountains). I spent the last 5 years at Emory University in Atlanta, GA where I finished my Ph.D. in mathematics with a research emphasis in graph theory/combinatorics. I have a younger brother, Mark, and he and his wife just had their first child on Friday last week! They live in the Piedmont region of NC, as do my father and stepmother. My mother and stepfather live in Virginia, so I'm truly a southerner. When I'm not working I like to play virtually any type of sport, and also enjoy biking, running, music (I used to play the piano and I can put together a few guitar chords...slowly), and of course animals. I went to France last summer to participate in a summer school in probability and combinatorics, so this was fun as it was my first trip outside of the US."

Dr. David Reineke: "I received a Ph.D. in Applied Statistics from the Air Force Institute of Technology in 1999. I also hold a B.S. in Secondary Mathematics Education (1991) and

an M.S. in Applied Statistics (1994) from Wright State University. Both of these universities are located near Dayton, Ohio, where I grew up. As a kid I was small and got progressively larger. I enjoy music, woodworking, fitness activities, watching football, and playing golf - but I especially enjoy playing with my 3 children."

GUIDE FOR THE MATH MAJOR AVAILABLE

The "UW-La Crosse Guide for the Mathematics Major" is meant as a resource for current mathematics majors/minors or anyone considering majoring or minoring in mathematics. The guide is available in hard copy in the Mathematics Office - 1020 Cowley Hall and in the mathematics tutoring room - 102 Cowley. There is also an electronic version available on the web at our Departmental home page:

www.uwlax.edu/SAH/mathematics.

The guide includes information on requirements for the various majors and minors, course descriptions and the course offering pattern, as well as information on activities on campus, scholarships and tutoring opportunities, internships and undergraduate research, and general career opportunities after graduation. We hope that you will find this a useful source of information on our programs and other activities.

MATH CLUB

The Math Club is a recognized student academic club with many social and educational activities of interest to anyone interested in mathematics or statistics. This includes, but not limited to, things like fun mathematical talks by invited speakers, math trivia contests, picnics, potluck dinners and parties, trips to student math conferences, and friendly sporting contests with other academic clubs. The invited talks are at a level appropriate for undergraduate math majors. These talks cover topics in mathematics not ordinarily covered in regular courses, from pure mathematics to the best way to get a job after graduating.

The club is run almost entirely by students on a volunteer basis with elected student officers; membership and participation are very casual. A typical get-together is attended by math students, their friends, and some math faculty. The primary goal of the club is to have fun.

1999 - 2000 Math Club Officers:

Holly Miotke, President

Kelly Hasler, Vice President

We still need a treasurer and secretary and other volunteers to help with the club. The club is currently planning several fun and educational activities for this coming semester. First on the agenda is the Fall picnic.

Math Club Picnic:

The Math Club Fall picnic will be held on Thursday, September 23rd starting at around 4:00 p.m. at the Gun Club Shelter in Myrick Park. Myrick Park is right across La Crosse St. from campus and the Gun Club Shelter is the smaller shelter at the north end of the park next to the zoo. We will be grilling burgers and brats, and other food and drink will be provided. A small charge of a couple dollars is needed to cover the expenses. Other fun activities are planned. This is a great opportunity to meet other math students, and some of the new and old faculty. Sign up in the Math Department office, 1020 Cowley Hall.

STUDENT ACTIVITIES

Some of your fellow students had some interesting experiences over the summer. Here's a little about what they were up to:

Mashele Blanch - This past summer, Mashele engaged in an epidemiological study working under the supervision of Dr. Brenda Rooney at the Gundersen Lutheran Medical Foundation. There she was able to use her mathematics background to collect and statistically analyze data. She presented her research - *Screening, Diagnosis and Treatment: Depression in Primary Care* - to an audience of medical staff and has recently submitted her results to the Health Plan for their further use.

Kelly Hasler - Kelly worked with Dr. Hoar on research involving numerical methods used to solve partial differential equations. She received a Fellowship of \$2500 from the College of Science and Allied Health and conducted the research over the summer. She found some very interesting results. Kelly is planning to present her results at a meeting held at Argonne National Laboratory later this Fall and at the Undergraduate Research Day next Spring.

Michael Kristopeit - Michael worked with Dr. Hoar on the computational web site located at the URL
<http://www.compute.uwlax.edu>.

Mike has redesigned the inner workings of the site and has greatly expanded the statistics portion. We plan to add to the site throughout the year, so be sure to visit often.

Nick Roland - Nick worked with Dr. Kelly on a Fellowship he received from the College of Science and Allied Health to study Fourier and Wavelet Representation of Waves. A Fourier Series is a way to represent a function as a sum of sine and cosine functions that form a basis. Using such a sum, a function can be stored on a computer by simply storing the coefficients of the sine and cosine terms. In the 1980's people began doing similar work with new bases made up of wavelet functions. Nick's summer research was to compare the errors in using finite Fourier Series to represent functions to the errors using similar Wavelet representations.

Jason Wampfler - During the Spring of 1999, the UW-L Department of Mathematics was contacted by the Winona ORC Industries to conduct a statistical evaluation of their Secondary School Transition Program. This program prepares high school students with disabilities for employment after graduation. Data would be gathered on participants, past and

present, and analyzed for indicators to predict future job success. Jason Wampfler, a student with a major in Mathematics with Emphasis in Statistics as well as in Psychology was awarded funding through the Undergraduate Travel Grants Program to work on this project under the guidance of Dr. Dennis O'Brien, Dr. Helen Skala and Dr. Abdul Elfessi. Jason will be preparing a presentation of his results for the WORC and also for Undergraduate Research Day.

DR. SENGER RETURNS FROM SABBATICAL

Dr. Steve Senger is back at UW-L after his sabbatical leave last year. He spent the year working at the Biocomputation Center at NASA Ames Research Center in California. We welcome him back...winter in Wisconsin hasn't changed, Steve!

400 LEVEL COURSE OFFERINGS FOR SPRING 2000

In order to help you begin to plan your schedule for Spring 2000, we thought it might be helpful to give you some information on the schedule for next semester.

The 400 level courses being offered next semester include:

- MTH 410 - Complex Analysis
- MTH 412 - Abstract Algebra II
- MTH 442 - Mathematical Statistics II
- MTH 448 - Operations Research
- MTH 480 - Studies in Applied Math

CHALLENGING PROBLEMS CONTINUE

The Math Department's challenging problem competition continues to be a big hit. The competition is just for fun, with the intention of stimulating interest in mathematics. The competition is open to all students at all levels and all majors. In recent years, the top problem solvers were awarded small prizes for their efforts.

Here's how it works for those of you who are new to it. A challenging problem will be posted every two weeks on the Math Club bulletin board outside the tutor room (102 Cowley Hall). After a problem has been up for two weeks, all correct solvers will be acknowledged on the bulletin board. A correct solution will also be posted on the board along with the next challenging problem. If no correct solutions are received in the first two weeks, the problem will remain open until a correct solution is submitted. Students can pick up a copy of the current problem from the envelope on the Math Club bulletin board.

The first problem of the semester is available now. Solutions can be submitted to Jeff Boyle, 1033 Cowley Hall by noon, Friday, Sept. 24.