

MSCS Mess

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Department of Mathematics, Statistics, and Computer Science
St. Olaf College, Northfield, MN 55057

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This Week's Colloquium

Title:	The ABC Puzzles
Speaker:	Professor Emeritus Loren Larson
Date:	Monday, November 11th
Time:	3:30 PM
Location:	RNS 410

About the talk: Tangrams is a popular dissection puzzle consisting of five right triangles (two large, one medium, two small), a square, and a parallelogram. The remarkable thing about these pieces is that they can be assembled to form silhouettes of thousands of shapes (animals, plants, people, objects of all kinds). The caveat is that you must use all seven pieces in your construction. To experience these puzzles, Google Tangrams and select an interactive site.

The tangram shapes can also be used to form each of the letters of the alphabet (the websites will show these). However, though the representations are recognizable, many of them are not great. The object of this talk is to construct a different set of pieces that can be used to give a better representation of the letters. The mathematics behind this construction uses some interesting linear algebra that is usually not included in a standard linear algebra course, even though it is quite accessible. The mathematics will only be sketched to allow time for playing with the pieces.

About the speaker: Loren Larson joined the St. Olaf mathematics faculty in 1963 and is now Professor Emeritus living in Northfield. For twenty-six years he served as Associate Director of the prestigious William Lowell Putnam Exam, serving as an ex-officio member of the three person Questions Committee, responsible for setting the problems and offering a variety of solutions. One of his retirement hobbies is woodworking and creating puzzles with mathematical underpinnings. One of his pieces is the 8 8

8 knight tour that hangs in the staircase on the sixth floor of the Math Building.

This Week's Seminar

Title:	Dimensional Analysis, Power Laws, Data Collapse, and the Atom Bomb
Speaker:	Amy Kolan, St. Olaf College
Date:	Friday, November 15th
Time:	3:35 PM
Location:	RNS 204

About the Seminar:

Dimensional Analysis is a remarkable tool in that it can be used in almost any context in the sciences. It can give you a hint to the solution of a non-linear partial differential equation or it can lead to a universal function describing a whole class of materials. This talk will be an introduction to dimensional analysis for mathematicians. I hope to end this talk with a bang!

Women in MSCS

On Tuesday, November 4th at 7 pm the MSCS department will be hosting the Women in MSCS night. It will be located on the 6th floor lounge of the math department. All women majoring, concentrating, or interested in math, statistics, and computer science are invited to enjoy **free dessert** and conversation with faculty and alumnae. This event is for ALL women students interested in MSCS, not just majors. Hear about exciting careers, special opportunities for women in MSCS, and did I mention free dessert?

Chelsey Lecture at Carleton

This year the Chelsey Lecture at Carleton will feature Jim Propp. The Chelsey Lecture will be on Monday, and there will be a colloquium on Tuesday. These lectures look pretty interesting so please consider attending! The Chelsey Lecture is aimed at a general

audience and is on beautiful mathematical images. He will talk about the mathematical ideas underlying these, as well as the role they have played in his life. This will take place in Olin 149 at 7:30 pm on Monday. The second lecture is on Quasirandom Processes. These are deterministic systems whose microscopic behavior is designed to mimic the average case behavior of random systems. This talk will take place in Olin 141 at 4 pm on Tuesday.

Masters in Industrial and Applied Mathematics at Stout

Are you interested in learning more about applied mathematics, but do not want to spend the next 5 years getting a Ph.D? Then consider UW-Stout's professional science masters program in Industrial and Applied Mathematics! Students will gain advanced knowledge in mathematics, statistics, and scientific computing while also applying the knowledge to solve problems in business and industry. The program requires 35 graduate credits. Want more information? Check out uwstout.edu/programs/psmiam/

Applied and Computational Mathematics MS at Rochester Institute of Technology

Here is another opportunity to learn more about Applied Mathematics without getting a Ph.D. This program lasts two years and has three options: discrete mathematics, dynamical systems, and scientific computing. All students must submit a thesis at the end of their second year. If you would like more information, please see the website: <http://www.rit.edu/programs/applied-and-computational-mathematics>.

MSCS Jokes

Math: Name this series:

yay, yay, yay, yay, ... yay, yay, yay, yay, ...

yay, yay, yay, yay, ... yay, yay, yay, yay, ...

Statistics: How do you know you are talking to an extroverted statistician?

Computer Science: How many IBM cpu's does it take to do a logical right shift?

the register.

CS: 33. 1 to hold the bits, and 32 to push
S: The statistician is looking at your shoes!
M: The Fourier Series!

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If you would like to submit an article or event to be published in the Math Mess, e-mail jacobsoj@stolaf.edu