This Week's Mathematics Colloquium

Title: A Plethora of Polyominoes

Speaker: David Molnar

Time: Tuesday, May 6, 1:30pm

Place: SC 182

The Ultimate Colloquium

Polyominoes are collections of equal-sized squares stuck together edge-to-edge. If you've played Tetris, you've experienced the polysyllabic pleasure of polyominoes. Perplexing problems about polyominoes have proliferated at St. Olaf in the last three years, particularly in Discrete Math and in Gateways. In this ultimate colloquium, we will look at some of these problems, some problems from contests, unsolved problems, and most importantly, some games played with polyominoes. The primary purpose of the presentation is to profess the popularity of polyominoes, and to provide a peek at the connections between Recreational Mathematics and research. Naturally, some illustrations of wide-ranging problem-solving principles will percolate through. This is an elementary talk; previous practice with polyominoes is not a prerequisite.

David Molnar was born in New Jersey, where he spent his childhood reading Martin Gardner Books. He has spent most of the current millennium in Minnesota developing an unhealthy fascination with shiny rocks.

Departmental Distinction

Departmental Distinction in mathematics is a significant honor; it is awarded to graduating seniors who show a genuine interest and enthusiasm for mathematics and who have completed work of high caliber that goes beyond the minimal requirements for a major in mathematics. Although there is no list of mathematical obligations which guarantee an award of distinction, activities which support one's application for distinction include attending the Budapest semester, taking an REU in mathematics, doing a math-related internship, and taking several 300-level courses. This year we congratulate six seniors who have been awarded distinction: **Jason Grimm**, **Erik Johnson**, **Jerad Parish**, **Katie Pichotta**, **Jeremy Strief**, and **Jonathan Von Stroh**. As of yet we have received no information about any autograph sessions to be held by the six distinguished seniors.

Mother's Day Pig Roast

Mother's day is a time for bonding with those whom you love. Although your mother should be first and foremost in your heart on May 11, we hope that the mathematics community will be second on your list of loves. So why not combine your first and second loves and invite your mother to the annual Pig Roast! The festivities begin at 2pm with the student-faculty softball game. We need plenty of talented students to attend the game because, according to the official records, the students have not won a single softball game in the history of pig roasts. Food will be served at 4pm, and a vegetarian option is available. Tickets cost $5 but *mothers are free*! Please purchase your ticket from Donna Brakke in the math department office and email your caf number to strief@stolaf.edu.

Senior Math Banquet

The first annual senior math banquet is coming up on Wednesday, May 7, from 6-8pm in the Kings Room. Please email Donna Brakke (brakke@stolaf.edu) with your caf number if you would like to attend.

Honorary Memberships

Each year a number of worthy math students are granted honorary memberships to the AWM, MAA, AMS, and ASA. The students awarded AWM (Association for Women in Math) memberships for the 2003-04 year are **Katy Boe**, **Kathryn Bucka**, **Colleen Curren**, **Tricia Foster**, **Amanda Johnson**, **Andrea Johnson**, **Shradda Mehta**, **Kim Newman**, **Gretchen Riewe**, **Lisa Rotchadl**, and **Anna Swanson**. Honorary MAA (Math Association of America) members are **Tilman Achberger**, **Nicole Bohme**, **Matt Handley**, **Mike Heggeseth**, **Amanda Johnson**, **Noah Loome**, **Nick Maryns**, **Adam McDougall**, **Andrea Rau**, **Jason Saccamano**, **Kristine Thomsen**, **Decker Walker**, **Emily Weninger**, and **Barbara Thull**. The AMS (American Mathematical Society) memberships go to **Jeremy Strief**, **Amanda Febey**, and **Michael Zahniser**. Statistics students honored with ASA (American Statistical Association) memberships are **Sonja Clark**, **Matt Donald**, **Mark Schmelzle**, **Katie Pichotta**, **Jeremy Strief**, **Rachel Pedersen**, and **Peter Erling Sprangers**. A supscription to the statistics journal JASA was also awarded to **Jeremy Strief**. Congratulations to all these students!

Last Week's Problem

Can you tile the plane with any quadrilateral, or must there be restrictions on its shape?
Last week's problem was solved by **Jeremy Strief '03**. Jeremy points out that it is indeed possible to tile the plane with any quadrilateral Q; no restrictions are necessary. A proof rests upon the fact that the sum of the interior angles of Q is 360 degrees. As a result of this fact, we can construct a tiling with no gaps or spaces as long as each point at which the four Qs meet contains all four angles of Q. A recipe for such a tiling involves rotating quadrilateral Q 180 degrees around the midpoint of each edge.

Problem of the Week

Figure out whether the first or second player has a winning strategy in Snakey. (For a description of snakey, check out Professor Molnar's homepage.)

** Please submit all solutions to **David Molnar** (molnar@stolaf.edu) by next semester.

If you would like to receive a copy of the Math Mess in your P.O. Box weekly, please e-mail **Donna Brakke** at brakke@stolaf.edu.