

MSCS



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

September 12, 2008
Volume 37, No 1

This Week's Colloquium

Title:	A Pretty Problem in Partitions
Presenter:	Olaf Hall-Holt
Date:	Tuesday, September 16
Time:	1:30 pm
Location:	SC 188

Abstract: Almost one century ago, the famous mathematician Ramanujan discovered three unexpected patterns in the sequence of partition numbers. The 'Ramanujan congruences' led to extensive developments in the field of integer partitions. A little over a year ago, George Andrews, an expert in this area, discovered some similar patterns in a related sequence. The race is on to discover new congruences, as they appear to be related to many areas of mathematics (and even quantum physics). Last fall, the combinatorialist Tina Garrett posed a problem in partitions to an algorithms class here at St. Olaf. She asked if there was a congruence mod 11 for the smallest part statistic. Over the course of the semester, the class members made some exciting discoveries. This talk will explain their work and results, and pose some open problems.

GRE Review

If you are planning to take the GRE Mathematics Subject test this year, now is the time to review. This fall, Professors Gower and Ufferman will be holding evening review sessions for the GRE math subject test. If you are interested in attending the sessions, please email Eric Ufferman (ufferman@stolaf.edu) by Friday, September 12th (today). Please indicate which night(s) of the week are best for you, any nights that absolutely do not work, and which date you are taking the test. Please try to be as flexible as possible with scheduling.

Game Night Returns

All game enthusiasts are welcome to come to SC 188 on Wednesday nights at 6:45 PM to play a variety of mathematical and other board games. Past games have included Hawaiian checkers, and Settlers of Catan, to name a few. Goodies will be served.

Problem Solving Group

The Math Problem Solving Group meets weekly to work on a variety of problems, often with a central theme, and to discuss problem-solving strategies. Additionally, students can use the meetings to prepare for the MAA North Central Section Team Contest, the Putnam

Exam, the Konhauser Problemfest, the COMAP modeling contest, and other math competitions. This is an excellent exercise for students pursuing careers in math education and for students contemplating graduate mathematical study.

Interested students should contact Prof. Gower (gower@stolaf.edu) by Friday, September 19. Please indicate which night(s) of the week are best for you and any nights that absolutely do not work for you. Please try to be as flexible as possible with scheduling.

Welcome to New Faculty

The Department of Mathematics, Statistics, and Computer Science welcomes three new faculty members this year.

Sharon Lane-Getaz comes to us with a rich background of experience, including an 18-year career at IBM. She has also taught mathematics in middle school in Minneapolis and statistics in high school. The latter experience pointed her toward a PhD in Statistics Education at the University of Minnesota. While completing that degree she has also taught at Cal Poly in Pomona, Macalester College, and here at St Olaf.

Alex Woo joins us from a postdoc at the University of California -- Davis. No stranger to liberal arts education, Alex was an undergraduate at Williams College, going on to get his PhD from the University of California -- Berkeley. His research interests are in the fields of algebraic geometry and algebraic combinatorics.

Jason Gower comes to us from a postdoc at Minnesota's Institute for Mathematics and its Applications. Previously, Jason could be found at the University of Cincinnati, where he studied algebraic cryptography. Jason was an

undergraduate at Truman State University in Missouri, and did his PhD in number theory at Purdue University.

Science and the Liberal Arts

In recognition of the opening of Regents Hall of Science this year and in anticipation of the opening of the mathematics portion next year, the college theme for the year is "Science and the Liberal Arts". A varied program of events is planned for the year including speakers, arts performances and exhibits, movies, and a book club. The theme year website <http://www.stolaf.edu/academictheme/> has a list of events. Check back often since details for several upcoming events are still being finalized. The website will also soon include reading suggestions and recommended viewing.

Mark your calendars now for some math-related events: Manil Suri, mathematician and novelist, will present a talk on "Mathematics and Fiction" on October 21; Brian Hayes, science writer and author of *Group Theory in the Bedroom*, will speak on November 11, and MSCS professor Kay Smith will present a colloquium at 1:30 on November 4 (election day) on the mathematics of elections.

For ideas for your leisure reading and viewing this year, check out the Mathematical Fiction website:

<http://math.cofc.edu/kasman/MATHFICT/>.

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