

# 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 Role of Statistics and  
Programming in Medical Research**

Speakers:

**Sara Fett**, Statistical Programmer  
Analyst Supervisor, Mayo Foundation  
BS Mathematics, Winona State  
University, Winona, MN

**Rachel Pedersen**, Statistical Programmer  
Analyst III, Mayo Foundation  
BA Mathematics, Statistics  
Concentration, St. Olaf College

Date: Tuesday March 4<sup>th</sup>

Time: 1:30pm

Location: SC 170

**Abstract:** Programming, data management and statistical analyses are used to assist our medical colleagues in answering a variety of research questions. The goal of our presentation is to give a broad overview of the different types of medical research questions and how programming, data management and statistical analyses are used to answer these questions. We will also share information on our application process and what we look for in prospective candidates.

If you are interested in meeting with the speakers during the day on Tuesday, please email [kziegler@stolaf.edu](mailto:kziegler@stolaf.edu) to set up a time.

## Congratulations!

St. Olaf places **2nd** at 16th annual  
Konhauser Problemfest!

Take a glass half-filled with water sitting on a flat table and tilt it just slightly. Does the water level rise, fall or stay the same? This question, and others in the fields of geometry, algebra and analysis were solved by students competing in the Konhauser Problemfest at Macalester College on Saturday, Feb. 23.

St. Olaf's team of Thomas McConville, Nathan Clement and Charlie McEachern scored 90 points out of a possible 100 and placed second, behind Gustavus Adolphus College. St. Olaf placed ahead of Carleton, Macalester and St. Thomas.

Two other teams of Oles (Dan Mork, Andy Lithio, Lucas Antony and Megan Ehresmann, Bjorn Paulson, Matt Deram) placed in the middle of the pack, with 38 and 36 points respectively.

## More Congratulations!

**Julie Legler:** Monday afternoon Jim May, Provost and Dean of the College, announced that Julie Legler had been promoted to the rank of Full Professor. This is the highest rank a member of the faculty can achieve. Many never do so. This promotion recognizes a full career of outstanding teaching, research and service to the college. Professor Legler's promotion is well deserved and we look forward to benefiting from her presence for many years to come.

## And More Congratulations!

**Matt Richey:** In a second email on Monday, Jim May announced that Professor Matt Richey has been appointed to a three-year term as Associate Dean of the Natural Sciences and Mathematics. In this position, Matt will direct all academic and research activities in the departments of Psychology, Physics, Biology, Chemistry and MSCS. He will also have responsibility for the initial occupancy of the new Science Building and the renovation of our favorite building, the Old Music Hall. This appointment reflects the high esteem in which Professor Richey is held by his colleagues throughout all of the sciences.

## National award for undergraduate research

This past January, two of our senior math majors recently made the MSCS department proud at the annual national meeting of the Mathematics Association of America in San Diego. Joshua Campbell and David Swanson won a \$100 award for their poster on the research they did in Poland this summer. Their work in Poland was supported by an NSF grant that gives St. Olaf math majors the opportunity to work with leading researchers in Real Analysis at the University of Lodz. The poster was based on the paper they wrote: *Families of Density Type Topologies*, which was recently accepted for publication by the International Journal of Pure and Applied Mathematics.

## Summer Opportunities in Mathematics

Have you starting thinking about summer plans? If not, now is the time to start! There is a wide range of things to consider; jobs, research positions on campus or elsewhere, internships, etc. There is summer research available at St. Olaf. The program offers a fairly generous stipend and a wide range of projects to apply to. Check out the website (with online application form) at

<http://www.stolaf.edu/people/ceumb/research.html>

There are also several summer math programs as well as REU's at other institutions. These programs are fun,

pay well and prepare you for a future in mathematics. More than ever it is expected that students who are applying to graduate school have some research experience. Programs are offered at institutions all over the country in several areas of mathematics and related fields. If you are interested in an REU (Research Experience for Undergraduates) Check out the Nation Science Foundation website:

[http://www.nsf.gov/crssprgm/reu/reu\\_search.cfm](http://www.nsf.gov/crssprgm/reu/reu_search.cfm)

Some summer programs are specifically targeted towards students from under-represented groups. The EDGE Program, The George Washington Summer Program for Women and the Carleton Summer Program. Talk with your advisor or stop by to ask me about some of these other programs. You may also want to look into the opportunities available at CEL. They have internship information among other things.

<http://www.stolaf.edu/services/cel/>

It is definitely not too late to apply to many of these programs. Check out these options, talk to the folks in CEL or check in with your advisor during the first week of the term. Many deadlines are in February, so now is the time!

## Problem of the week

If  $x+y+z = a$  and  $1/x + 1/y + 1/z = 1/a$ , show that one of  $x$ ,  $y$  or  $z$  must equal  $a$ .

*This week's problem was submitted by Professor Corzatt*

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*If you would like to submit an article or math event to be published in the Math Mess, e-mail [tummers@stolaf.edu](mailto:tummers@stolaf.edu).*