

MSCS MESS

Department of Mathematics, Statistics, and Computer Science
St. Olaf College, Northfield, MN 55057
September 14, 2016 | Volume 47, No. 1

Next Monday's Colloquium

Title: Effects of Communication
Restriction on Online Multi-
Robot Exploration
Speaker: Elizabeth Jensen
Time: 3:30 PM
Date: Monday, September 17
Place: RNS 310

About the talk: In multi-robot exploration for real-world applications, the amount of communication available in a given environment can vary greatly, and has significant effects on the performance of the robot team. In this talk, I will introduce and compare algorithms which use three communication models, from unlimited global communication to unplanned, semi-random encounters between robots; and evaluate each algorithms' performance with different sized robot teams in three environments. I will discuss simulations results showing how the algorithms perform under optimal conditions, and discuss how real-world situations can impact performance.

About the Speaker: Professor Elizabeth Jensen ('07), PhD, is an Assistant Professor of Computer Science at St. Olaf College. She has conducted research on multi-robot systems in the USA, Norway, and Japan.

Northfield Undergraduate Mathematics Symposium

Each year, the Northfield Undergraduate Mathematics Symposium (NUMS) provides students from St. Olaf and Carleton with an opportunity to present on the variety of interesting research problems they have been working on. NUMS

will be held on October 2nd at Carleton's Center for Math and Computing (CMC). Applications are due September 14th (today!), so contact Professor Wright (wright5@stolaf.edu) or Ellen (habero1@stolaf.edu) for the application form if you are interested in applying.

Upcoming Symposia: Midstates Consortium for Math and Science

This November, the Midstates Consortium for Math and Science will be holding consortia at the University of Chicago and Washington University in St. Louis. These meetings give undergraduates an opportunity to present their own research projects to their peers and consortium faculty. In recent years, the meetings have each drawn about 100 students and over a dozen faculty. In addition to oral and poster sessions, each meeting includes a graduate panel where undergraduates may ask questions about applying, selecting, and going to graduate school in the natural sciences.

This year, the symposium on biological sciences and psychology will be held November 2nd and 3rd at the University of Chicago. The symposium for physical sciences, math, and computer science will be held November 9th and 10th at Washington University in St. Louis. Applications for both events are due September 26th, and students seeking more information about either event should contact Professor Berliner (berliner@stolaf.edu).

Student Data Science Challenge

MinneAnalytics is inviting teams of up to five students to compete to predict voter turnout. Each team will have several weeks to analyze data before

the November 3rd event in Eden Prairie. St. Olaf has not yet competed, but a team may be formed this year. Successful teams require members who are willing to commit five or more hours a week in October with increasing commitment as the competition approaches. Interested students should contact Professor Roback (roback@stolaf.edu).

Sports Analytics Club

Students with interest in sports analytics and any level of experience should consider attending the organizational/informational meeting for Sports Analytics Club on Wednesday, September 19th, from 7-8 PM in TOH 186. Activities could range from collecting and organizing the data to figuring out how to effectively communicate the data using insightful visualizations, sophisticated models, and more. Student analysts may study teams at St. Olaf and beyond.

To submit an article, event, or anything else for publication in the mess, email jadkow1@stolaf.edu; to receive the Mess digitally each Friday, email habero1@stolaf.edu; visit <http://wp.stolaf.edu/mscs/mscs-mess/> for a digital archive of previous MSCS Mess issues.

Engineering Team Info Session

Interested in Engineering? Want to see some sweet drones? Then stop by the information session for the Engineering Team! The St. Olaf Carleton engineering team (STOC Machine) is a intercollegiate, competitive team that provides the opportunity for St. Olaf and Carleton students to learn about and participate in hands-on engineering and design processes through participation in external engineering competitions. The session will be held on Sunday at 3 PM in RNS 210.

MSCS Picture Days

With the new year, we will need to update our MSCS "Wall of Fame" with new photos. If your photo is not on the display, located in the link on the second floor of RMS, stop by RMS 307 during one of the listed windows to have your picture taken (rain or shine!).

Thursday, September 27th 4pm-6pm

Tuesday, October 2nd 3-5pm

Will Jadkowski, Editor
Dave Walmsley, Faculty Adviser
Ellen Haberoth, Mess Czar