MSCS Mess

Department of Mathematics, Statistics, and Computer Science
St. Olaf College, Northfield, MN 55057
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What is the MSCS Mess?

The MSCS Mess is all about **informing you about relevant events for MSCS, Math, Stats, and CS students**. These events include Colloquium talks, Research Semniars, celebratory events, and some fun facts/applications.

Friday's Research Seminar

Title: **Factor Systems and the Second Cohomology Group of Leibniz Algebras**
Speaker: Erik Mainellis
Date: 9/30/22, 3:30pm
Place: RNS 204

Factor systems are a tool for working on the extension problem for algebraic structures such as groups, Lie algebras, and Leibniz algebras. We construct the Leibniz-algebraic analogue to a series of group-theoretic results from W. R. Scott's Group Theory. Fixing a pair of Leibniz algebras A and B, we develop a correspondence between factor systems and extensions of A by B. This correspondence is strengthened by the fact that equivalence classes of factor systems correspond to those of extensions. Under this correspondence, central extensions give rise to 2-cocycles while split extensions give rise to 2-coboundaries. We thus have a notion of the second cohomology group of A with coefficients in B. This characterization of extensions has many applications to extension theory.

CS Students - Coding Interview Training

St. Olaf is offering AlgoExpert as a resource for preparing for Code Interviews, note that it is estimated to require 150 hours of online training over 4 months. Through this you will also be able to network and have one-on-one time with CS Alumni. The certification will show proficiency in Algorithmic programming. Algorithm problems are an essential part of the interviewing process - so it is extremely beneficial to obtain training. **The deadline to apply is Monday, October 10th at 11:55pm**. Register here!

Math Across the Cannon
What is it?

Math Across the Cannon is an annual seminar series in collaboration with Carleton College which brings a prominent mathematician to Northfield to give an **accessible** talk at each college. Accessible means that any student with an active interest in that field will generally be able to follow along.

The following two talks will be delivered by Prof. Satyan Devadoss, a mathematician, educator, and artist. He is the Fletcher Jones professor of applied mathematics and professor of computer science at the University of San Diego. Before coming to California, he was a professor at Williams College for nearly 15 years, along with visiting positions at Ohio State, UC Berkeley, Harvey Mudd, and Stanford. An inaugural fellow of the AMS and recipient of two national teaching awards from the MAA, his thoughts have appeared in venues such as NPR, the Times of London, the Washington Post, and the Los Angeles Times.

Math Across the Cannon

Title: **Unfolding Mysteries at Burning Man**

Speaker: Satyan L. Devadoss

Date: 10/4/22, 3:00pm

Place: **Carleton**, Olin 141

Over 500 years ago, the Renaissance master Albrecht Dürer began exploring geometric mysteries related to unfolding boxes of all shapes and sizes. We discuss these simple puzzles, and play with some higher-dimensional versions, all of which inspired the creation of an interactive 2-ton artwork that was displayed at Burning Man, the world's most influential sculpture showcase

Math Across the Cannon

Title: **Mathematics and the Art of Being Human**

Speaker: Satyan L. Devadoss

Date: 10/4/22, 7:00pm

Place: Viking Theater

Over the past century, mathematics has become increasingly valued in our technologically driven world. Unfortunately, this has come at a great cost, where we prioritize the sciences over the arts, digital over analog, and measurability over complexity. The effects of this have impacted all aspects of our live, notably education at all levels. This talk offers a possible way to redeem our STEM obsessed world. Everyone is welcome to attend!