

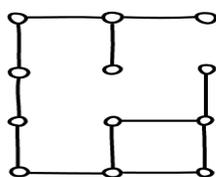
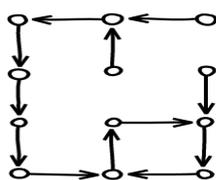
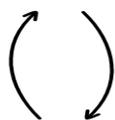
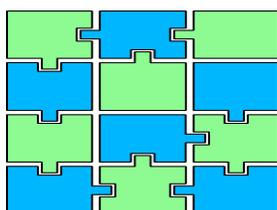
MSCS MESS

Department of Mathematics, Statistics, and Computer Science
 St. Olaf College, Northfield, MN 55057
 September 29, 2017 | Volume 46, No. 3

Monday's Colloquium

Title: Snap Cubes, Grid Graphs, Wheels and Unicycles
 Speaker: Jacob Siehler
 Date: Monday, Oct. 2 | 3:30 p.m.
 Place: RNS 310

About the talk: The Tutte polynomial is beloved by algebraic graph theorists, but rarely appears in the second grade classroom (and is not even mentioned in most state standards at this grade level). However, a simple classroom question about building with Snap Cubes



will lead us to graph polynomials, intriguing integer sequences, and thrillingly large numbers. We'll also see some lovely examples of linear algebra applied to counting problems. No background in graph theory or algebra will be necessary to appreciate the talk, however.

Northfield Undergraduate Mathematics Symposium

Date: Wednesday, Oct. 4th
 Time: 3:40-7:40 p.m.
 Place: RNS 210
 Food: There will be some.

About the event: A storied tradition between St. Olaf and Carleton, every fall one of the colleges hosts an event to celebrate undergraduate research in mathematics. Come support your fellow students, learn about their research, and eat some food!

Ole Itinerary

3:40pm *On the properties of k th-Order Fibonacci-like polynomials*

Katherine Arneson

4:30pm *Invariantization of finite difference approximations on differential equations*

Spencer Eanes and Shane Kosieradzki

5:20 *Dinner (graciously provided)*

6:25pm *Refined Inertia for Sign Patterns*

Derek DeBlieck and Deepak Shah

7:15pm *Topological data analysis on various applications*

So Mang Han and Xiaojun Zheng

Other Carleton presentation titles include *A model of hierarchy emergence in complex networks; Automated jigsaw puzzle assembly and invariant signatures; Factorizations of k -Nonnegative Matrices; and Mutational signature analysis with the Indian buffet process.*

Friday's Research Seminar

Title: Introduction to Hypercyclicity: Part 2

Speaker: David Walmsley

Date: Friday, Oct. 6 | 3:40 p.m.

Place: RNS 204



About the talk: In this second installment, we will transition from the entire complex plane to the open unit disk, and from entire functions to bounded analytic functions on the disk. In particular, we will focus on the set of functions analytic on the open unit disk and bounded in modulus by one. This set is no longer a vector space, yet we can apply the same techniques as in the first installment to study hypercyclicity on it. We will study composition operators, and finally be able to see what a hypercyclic element can look like.

PME Mathclub Announcements

Only two days left to apply to be a Pi Mu Epsilon and Math Club Class Representative! We have positions open for the classes of 2021, 2020, and 2019. Anyone who is enthusiastic about math and would like to help make a difference in the St. Olaf Mathematics community can apply using [this Google Form](#) or email roiger1@stolaf.edu. The deadline is on October 1st at 11:59 pm. This is an excellent opportunity to get more involved on campus and we hope to see your application soon.

Calling All aRtists

Ever made a no-good, really bad, terrible plot in R? Me neither. But if YOU have, please email roiger1@stolaf.edu to have your aRt on display in the RMS hallway.

To submit an article or event for publication in the mess, email nevilleq@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.

It's Picture Day!!

It's that time of year again! Dust off your dad's suit or your mom's pantsuit, MSCS department pictures are here! Pictures will be taken of all Mathematics, Statistics, and Computer Science majors on **Thursday October 5th, 4-6 p.m.** to be put up on the Wall of Fame (2nd Floor RMS).

Weekly Theorem

Bear Theorem– Pandas are not bears, but they are murders.

Proof. All bears are a color. A panda bear is two colors, and is therefore not a bear at all, but a collection of lemurs pretending to be a bear. Every panda eats bamboo. At restaurants, they eat bamboo, shoots and leaves. Therefore all pandas, who are not bears, are murders. ■

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