MSCS 🦁 MESS

Today's Research Seminar

Title:	Techniques for Determining Equality of the Maximum Nullity and the Zero Forcing Number of a Graph
Speaker:	Derek Young
Time:	3:40 PM
Date:	March 22
Place:	RNS 204

About the Talk: The maximum nullity of a simple graph G over a field F is the maximum possible nullity among all symmetric matrices over F whose ijth entry is nonzero exactly when ij is an edge in G for i not equal to j, and the iith entry is any element in F. The zero forcing number of a simple graph G is the minimum number of blue verices needed to force all vertices of the graph blue by applying the color change rule. It is known that the zero forcing number of a graph is an upper bound for the maximum nullity of the graph. In this talk, I will discuss techniques that determine if the maximum nullity of a graph is equal to the zero forcing number of the graph.
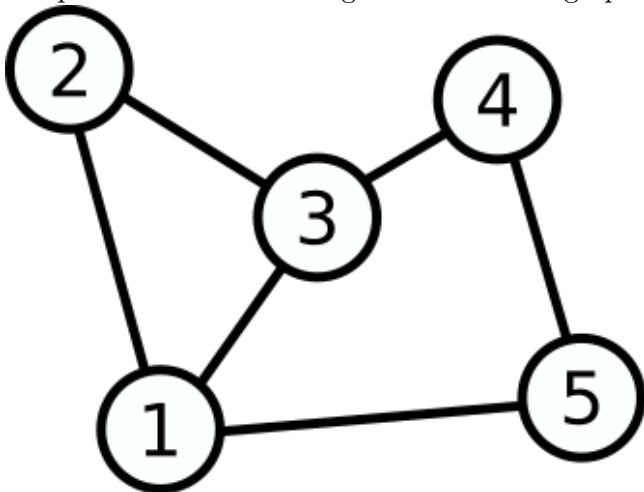
Spring Break is Here!

And between it and quiet week, we have no upcoming colloquia or seminars to tell you about. But there are some important MSCS events to keep on your radar. These include (but are not limited to) Pi Mu Epsilon's induction, trivia night, the MSCS recital-talent show, and fall registration! If you're unsure of what MSCS course(s) you want to take next fall, make sure to read the Mess's next issue, which will include descriptions that go beyond what you might find in the class schedule.

Q and A with Dave Walmsley

To kick off a new section of the MSCS Mess, we sat down with math professor Dave Walmsley and asked him a few questions*.

MSCS Mess (MM): Could you tell us a bit about your research?

Dave Walmsley (DW): I'm primarily interested in linear dynamics, which is a branch of functional analysis. Can you believe that there is one function whose sequence of derivatives can be used to approximate any continuous function on the unit interval? This is an example of the kind of math that excites me the most.

MM: Any words for students interested in pursuing math in graduate school?

DW: Try to explore new areas and find what you love. I entered it thinking I'd study group theory but took a course in analysis and knew it was for me. Grad school is also super challenging, but you get to do what you love and prove things that nobody has proved before, which is a pretty amazing feeling. One last thing - choose your advisor, not your research topic. Having an advisor who's compatible with the advising and support you want is

more important (in my opinion) than having an advisor whose research is the closest to what you're interested in.

MM: Does it feel repetitive to teach the same course multiple times?

DW: Not at all, and I enjoy having the opportunity to improve my teaching of a course. The way I taught Calc I this year was vastly different than the way I taught it last year. Teachers are always evolving.

Statistics and Data Science Career Panel

Four Ole grads will be coming by on Monday after break to discuss careers in statistics and data science, as well as how to find a position and fulfillment in your career once employed. The grads work at EAB, Be The Match, Best Buy, and OptumLabs.

What: Stats and Data Science Career Panel
When: April 1 from 7-8 PM
Where: RNS 310

Apply to the CIR

Applications are now being accepted for the Center for Interdisciplinary Research (CIR) for the 2019-20 academic year; review of applications will begin on Friday, April 5th. The goal of the CIR is to provide undergraduate students with interest and background in statistics with training and experiences in modern practice while engaging in applied, collaborative, interdisciplinary research. More information is available online at https://wp.stolaf.edu/cir/. Selected Fellows participate in weekly research skills seminars in addition to individual research teams' own meetings.

Participants receive 0.5 credits per semester and an ORC credit after successful completion of both semesters. Applications are due on Friday, April 5 (the first Friday after spring break).

CS Social Thursday After Break

COMPUTER SCIENCE
SOCIAL

THURSDAY, APRIL 4
5 - 6:30 PM
CS LOUNGE

Get to know the CS faculty better

Get help major mapping

Hang out with other CS majors

Free snacks!

Everyone is Welcome!

Sponsored by Linux Ladies

MSCS Recital!

Back for the nth year, the MSCS department is hosting the annual MSCS Recital! Come by Ytterboe's lounge on April 10 at 7:00pm for an evening showcasing our department's wide ranging talents! Those interested in performing are encouraged to contact Steve McKelvey (mckelvey@stolaf.edu).

Dialogue edited for clarity, flow. 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.

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