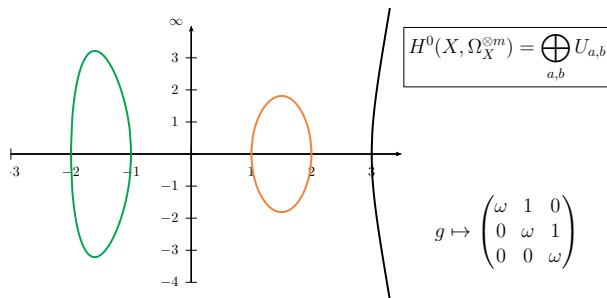


# MSCS MESS

Department of Mathematics, Statistics, and Computer Science  
 St. Olaf College, Northfield, MN 55057  
 26 April 2019 | Volume 47, No. 22

## Today's Research Seminar

Title: Representation Theory, Algebraic Geometry, and the Space of Holomorphic Polydifferentials  
 Speaker: Adam Wood '16  
 Time: 3:40 PM  
 Date: April 26  
 Place: RNS 204



**About the Talk:** Modular representation theory is the study of linearized snapshots of a group, realized as matrices with entries in a field of positive characteristic. When a group  $G$  acts on a geometric curve, one can define the space of holomorphic polydifferentials of the curve, which provides a representation of  $G$ . It is a classical problem to determine the decomposition of this representation into indecomposable pieces. We discuss introductory representation theory and relevant geometric notions. We then use methods from linear algebra and geometry to describe the structure of the space of holomorphic polydifferentials in the modular case, extending previous work on the subject.

**About the Speaker:** Adam is a third year graduate student at the University of Iowa. He is excited to be back in Northfield after graduating from St. Olaf in 2016, where he majored in Math-

ematics and Physics. His research area is representation theory. Currently, he is using tools from algebraic geometry to understand geometrically defined representations of certain finite groups.

## Next Monday's Colloquium

Title: Math Visiting Professor Candidate Talk  
 Speaker: Jesse Miller  
 Time: 3:00 PM  
 Date: April 29  
 Place: RNS 310

Please note that this talk is scheduled for 3:00 PM.



**About the talk:** Probability is a fascinating subject with a rich history, but it is generally not well understood. Misunderstandings are expected, though, in a field about whose very definition we lack consensus. In this talk, I sketch a brief history of modern notions of probability, discuss the fundamental philosophical differences among these views, and discuss an in-class experiment that illustrates how difficult simulating randomness is for humans.

## Lunch with Healthcare Administration Fellow

Have you ever wondered what a career in healthcare administration is like? If so, please join us for a caf-tray lunch today (4/25) in BC 220 at 11am! John Crist is a current Healthcare Administration Fellow at Allina Health in Minneapolis. He will be talking about his career path and will be available to answer questions about his work.

## CS Visitor

**Christopher Liljenstolpe '90**, who is co-founder and Chief Technical Officer of the Internet security firm Tigera in San Francisco, will be visiting campus this weekend (as judge for the Ole Cup competition) and staying through Monday 4/29. On Monday, Christopher will provide feedback on presentations by CS undergraduate researchers in a session open to all interested CS students.

Title:	A Computing “Master Class” with Christopher Liljenstolpe '90
Presenters:	Anway De, Bidit Sharma, Hugo Valent, and Thong Vo
Time:	11:50-12:45
Date:	April 29
Place:	RNS 202

**Synopsis:** Students will present research projects involving the Kubernetes container orchestration system, which automates deployment of networked computing applications; Christopher will provide feedback to the presenters, including next steps for secure networking in those projects, which combine local and remote cloud computing connected via the Internet. Persons interested in CS are welcome to attend and hear about these hot topics in the world of computing from an industry expert.

*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.*

Session:	Open Office Hours with Christopher Liljenstolpe '90
Time:	10:30-11:30 AM and 5:30-6:30 PM
Date:	April 29
Place:	RMS 200
RSVP:	RSVP here, but don't hesitate to drop in.

**About:** Christopher will also be available to meet with students at Monday “office hours”. He has long experience in the computing industry, is leading a highly successful startup company at the heart of network security and cloud computing, and has much to share about where the industry is going as well as how to start a computing career. Come and get to know him!

Got questions about Christopher's visit? Email rab@stolaf.edu and bransf1@stolaf.edu.

## Job Opportunity for Graduating Students

Interested in working as an actuarial analyst? Ole grad Mark Shulte is looking to hire a full-time analyst at the Minneapolis office of Van Iwaarden Associates. Interested persons are encouraged to apply soon via the posting on handshake, linked here.

## Seniors: Send Your Plans!

We'd greatly appreciate it if graduating MSCS students would fill out the Senior Salute form that was sent out earlier this week. If you're having trouble finding or accessing it, please contact jadkow1@stolaf.edu.

## MSCS Mess Feedback

We want to know how we're doing and kindly ask that you share your feedback on this form.

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