

# MSCS MESS

Department of Mathematics, Statistics, and Computer Science  
St. Olaf College, Northfield, MN 55057  
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## Next Monday's Colloquium

Title: Jobs and Technology: Are robots going to take our jobs and increase inequality?  
Speaker: Heidi Schierholz  
Time: 3:30 PM  
Date: March 11  
Place: RNS 310

**About the Speaker:** Heidi Shierholz, Ph.D., leads EPI's policy team, which monitors wage and employment policies coming out of Congress and the administration and advances a worker-first policy agenda. Throughout her career, Shierholz has educated policymakers, journalists, and the public about the effects of economic policies on low- and middle-income families. Her research and insights on labor and employment policy, the effects of automation on the labor market, wage stagnation, inequality, and many other topics routinely shape policy proposals and inform economic news coverage. Her work has been cited in many broadcast, radio, print, and online news outlets, including ABC, CBS, NBC, CNN, NPR, The New York Times, The Washington Post, and Huffpost.

## Next Friday's Research Seminar

Title: The Little Lip Function  
Speaker: Bruce Hanson  
Time: 3:40 PM  
Date: March 15  
Place: RNS 204

**About the Talk:** This year is the 100th birthday of Rademacher's Theorem which states that if a real valued function  $f : \mathbb{R} \rightarrow \mathbb{R}$  is Lipschitz, meaning that there is a constant  $M < \infty$  such that  $|f(x) - f(y)| \leq M \cdot |x - y|$  for all  $x, y$  in  $\mathbb{R}$ , then

$f$  is differentiable almost everywhere. After explaining what this means and sketching the proof of this famous result, Bruce will recap the exciting, still unfolding saga of the little lip function, lip  $f$ , which burst onto the real analysis scene only in the last decade or so. The function lip  $f$  provides pointwise Lipschitzian control of  $f$ . Unraveling its relationship to the differentiability properties of  $f$  has provided Bruce with hours of fascinating investigative work and he will try to hit the highlights of this journey. Anyone who has been to one of his previous talks on this subject knows just how thrilling this subject can be. You won't want to miss it.

**About the Speaker:** In his spare time Bruce Hanson enjoys working out, going on long bike rides, playing his guitar and indulging in his fantasy of becoming fluent in Hungarian.

## Sports Analytics Club Talk

Title: Sports Analytics with Model 248  
Speaker: Sam Walczak '14, Marc Richards '16  
Time: 7:00 PM  
Date: March 14  
Place: HH 502

**About the Talk:** Model 284 is a sports analytics website/blog started by former Oles Sam Walczak ('14), Marc Richards ('16), Eric King ('14), and Jack Werner ('16). All four studied Math and Stats during their time at St. Olaf and now work in analytics positions around the Twin Cities, while posting their sports analysis on Model 284. Their work at Model 284 has focused on Basketball, Football, Baseball, and Hockey, and has included: predicting the winners of games, player evaluation, and game/team strategy.

In their talk, they will be diving into their models for the NCAA Tournament (March Madness) and explaining what factors they have found to be predictive of tournament success, how simulations can be used to fill out your bracket, modeling point spreads and totals for betting, and which modeling techniques they have found to be effective. They will also give an overview of some work we have done analyzing MLB pitchers, including their projects examining pitcher predictability and

pitch mix similarity.

## $\pi$ Day!

Hold onto your hats, because pi day is next week! Come by the 6th floor lounge of Regents Math at tau (6:28 PM) for a fun night of games, company, and of course pie! Also, keep an eye out for the digits of pi written out on paths around campus (weather permitting).

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

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