MSCS MESS

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

Title:	Many Data Views
Speaker:	Brianna Heggeseth ('08)
Time:	3:30 PM
Date:	November 12
Place:	RNS 310

About the talk: When we analyze data, we often search for the "best" model that either gives us the smallest prediction errors or is closest to the true relationship in the population. The journey to reaching that goal may be as informative as the final model itself. Motivated by research questions in public health and health policy, I discuss how using a variety of statistical models and methods along our data analysis journey can help highlight different views of the data. While many of these views provide evidence for the same conclusion, others may highlight interesting aspects of the data that broaden your understanding of the data.

About the Speaker: Professor Heggeseth's primary research interests lie broadly in the study of statistical methods and their application in social and hard sciences. She has recently collaborated with colleagues in social psychology, environmental epidemiology, genetic biology, and health policy. Her methodology work has focused on uncovering group structure in longitudinal data through clustering analysis techniques, probability models, as well as data mining approaches. She graduated from St. Olaf in 2008 with a BA in Math and Statistics and earned her PhD in Statistics from UC Berkeley in 2013.

Next Friday's Research Seminar

Title:	A tale of two models for foraging locusts
Speaker:	Jasper Weinburd
Time:	3:40 PM
Date:	November 16
Place:	RNS 204

About the Talk: Locusts gather by the millions to feed on crops, destroying fields of agricultural produce. As juveniles, wingless locusts march together and form a wave of advancing insects. We examine this collective propagation through two models: an agent-based model and a set of partial differential equations. The agent-based model is directly linked to individual behavior, via observations from the biological literature, while the PDE

model yields insight into the collective behavior of the aggregate group. In this talk, I'll introduce both models and describe what each can tell us about the ravenous locusts.

About the Speaker: Jasper is teaching at St. Olaf this semester and finishing up his dissertation at the University of Minnesota, where he is a graduate student. As an undergraduate he attended a small liberal arts college in upstate New York, near where he grew up. When he was little he used to visit Minnesota for family reunions in the beautiful summer and for holidays in the beautiful winter. Besides math, his favorite things to do are camp, canoe and fish, and play ultimate frisbee – all with his fiancé and dog.

Math & Stats Grading

Want a job? The MSCS Department is looking for students to work as graders this spring. If you're interested, fill out the form below.
https://goo.gl/forms/ZRqdDJndZxzO23qE3.

Crossword solution

Following up on last week, we've published the solutions to the crossword puzzle on the third page of this issue.

Career Corner: Biostatistician

Biostatisticians use mathematics and statistics to answer questions in biological fields, such as medicine, pharmacy, agriculture, and public health. This can range from conducting experiments to interpreting and inferring results from such experiments. A biostatistician could work for a pharmaceutical company to study the effectiveness of a treatment against an illness. They could also study the chronic kidney disease epidemic taking place in rural Nicaragua. You would likely use tools such as R and SAS to conduct your analyses. Interested in learning more? Sign up for biostatistics in a future interim!

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.*

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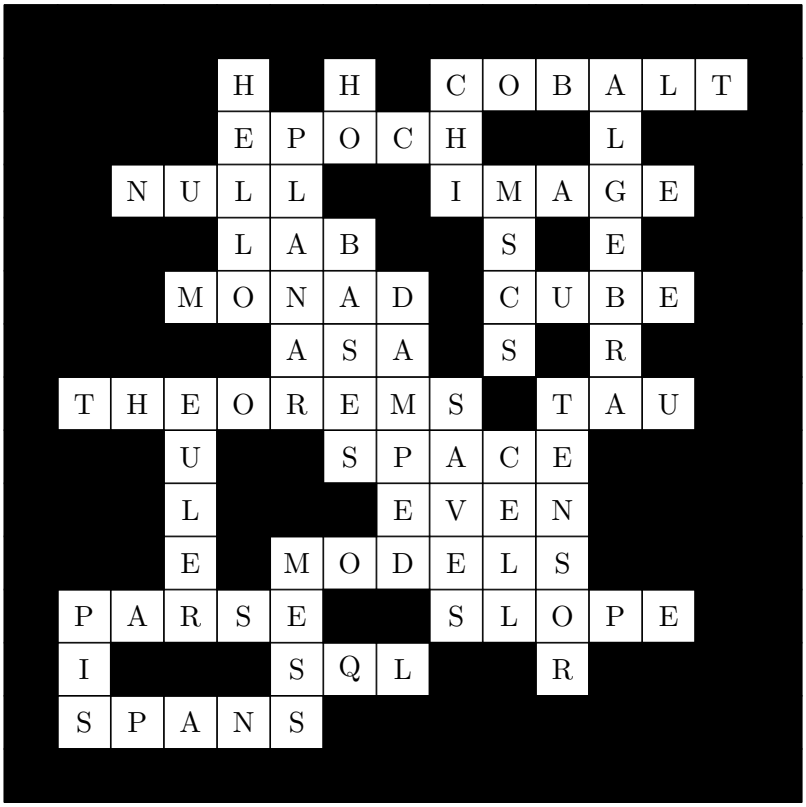
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