

Suter Science Seminars 2017-18

Statistical Methods for Characterizing Changes in Extreme Precipitation Over the Continental United States

Mark Risser, PhD

*Postdoctoral Research Fellow
Lawrence Berkeley National Lab
Berkeley, California*



**Wednesday, October 11, 2017
4 p.m. Science Center, room 106**

Statistics is the science of using data to draw conclusions and make decisions, and statisticians use mathematical tools to develop methods for analyzing and interpreting empirical data. A highly interdisciplinary field, one application of statistics is in climate science, where the goal is often to characterize changes in atmospheric processes such as precipitation over time and across a topographically diverse geographic domain. This seminar demonstrates how spatial statistics, combined with extreme value analysis, can be used to analyze a large data set of precipitation measurements over the continental United States (CONUS). The results of this analysis are used to describe the impact of climate change on storms that yield large amounts of rainfall and identifies regions of CONUS that can expect to see intensifying precipitation in future years.

Mark Risser is a postdoctoral fellow at the Lawrence Berkeley National Laboratory in Berkeley, CA with the CASCADE project (<http://cascade.lbl.gov/>), as well as a visiting scholar and lecturer for the Department of Statistics at the University of California, Berkeley. Dr. Risser received his undergraduate degree (B.S., Mathematics) from Eastern Mennonite University in 2007, and in 2015 received his Ph.D. in Statistics from the Ohio State University. His primary research is in spatial/environmental statistics and Bayesian modeling, but he also has interests in extreme value analysis and computational methods. Before pursuing his Ph.D. at Ohio State, Dr. Risser worked for three years in the Office of Admissions at EMU, from 2007-2010.

Personal website: <https://sites.google.com/site/markdrisser/>



SERVING • LEADING • TRANSFORMING

Suter Science Center
1194 Park Rd.
Harrisonburg VA 22802
540-432-4400

emu.edu/science-seminars