Megan Heyman
Curriculum Vitae

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EDUCATION

2016 Ph.D., School of Statistics, University of Minnesota
2014 M.S., School of Statistics, University of Minnesota
2008 B.S., Mathematics, Rose-Hulman Institute of Technology

PROFESSIONAL APPOINTMENTS

2016 - Rose-Hulman Institute of Technology, Mathematics, Assistant Professor

PUBLICATIONS

2016 **Heyman, M.** and Chatterjee, S. "WiSEBoot: Wild Scale-Enhanced Bootstrap." R package version 1.4.0, 2016. http://CRAN.R-project.org/package=WiSEBoot.

2015 **Heyman, M.** and Chatterjee, S. "Predicting Crop Yield via Partial Linear Model with Bootstrap." *Machine Learning and Data Mining Approaches to Climate Science: Proceedings of the 4th International Workshop on Climate Informatics.* Eds. V. Lakshamanan, E. Gilleland, A. McGovern, and M. Tingley. Springer International Publishing, 2015. 81-90. Print.

In Progress

Braverman, A., Chatterjee, S., **Heyman, M.**, and Cressie, N. "Probabilistic Evaluation of Competing Climate Models." (submitted at *ASCMO*)

Chatterjee, S. and **Heyman, M**. "The WiSE Bootstrap Method for Model Selection in the Partial Linear Model." (intended for *J. Royal Stat Society Series B*)

Heyman, M. and Chatterjee, S. "WiSEBoot: An R package for model selection in a partial linear model." (intended for *Journal of Statistical Software*)

Heyman, M. "lmBoot" (R package, intended release summer 2017)

St. George, S., **Heyman, M.** and Chatterjee, S. "Signal Extraction in *pinus ponderosa* Tree-Ring Records using Wavelets."

Heyman, M. and Chatterjee, S. "Efficient and Robust Classification of Bootstrap Techniques in the Partial Linear Model."

Chatterjee, S., **Heyman, M.** "A review of wavelets and their uses in statistics."

AWARDS AND HONORS

Rose-Hulman Institute of Technology

2017 Macmillan Learning Travel Award, Summer Institutes on Scientific Teaching

University of Minnesota

2015 Graduate Research Partnership Program (GRPP) Fellowship
2015 U-Spatial Mapping Prize – "Graduate Student – Most Provocative/Transformative"
2014 Martin-Buehler Fellowship in Statistics
2013 Lynn Y. S. Lin Fellowship in Statistics
2012 Honorable Mention, National Science Foundation Graduate Research Fellowship

CONFERENCE PRESENTATIONS

(2017) "An Introduction to Developing R Packages," Women in Statistics and Data Science, Oct. 19 - 21
(2017) "Evaluation of Climate Models Using the Wild Scale-Enhanced Bootstrap," Joint Statistical Meetings, Jul. 29 – Aug. 3
2016 "Using Wavelets to Discover Relationships Among Tree-Ring Records," Joint Statistical Meetings, Jul. 30 – Aug. 4
2015 "Using the Wild Bootstrap Method on Wavelet-Decomposed Climate Time Series," Joint Statistical Meetings, Aug. 8 – 13
2015 "The WiSE Bootstrap for Climate Model Evaluation," Workshop on Understanding Climate Change, Aug. 4-5
2014 "Predicting Corn Yield via Partial Linear Model with Bootstrap," Climate Informatics, Sept. 25 - 26
2014 "Bootstrapping in the Partial Linear Model," Joint Statistical Meetings, Aug. 2-7
2012 "Statistical Dimension Reduction Analysis," Workshop on Understanding Climate Change, Aug. 6 - 7

TEACHING EXPERIENCE

Rose-Hulman Institute of Technology

Engineering Statistics	(Quarterly)
Design of Experiments	(Winter 2016-17)
Time Series & Linear Mixed Models –Indep. Study	(Winter 2016-17)
Nonparametric Statistical Methods & Applications	(Spring 2017)

University of Minnesota

Theory of Statistics I	(Spring 2016)
Data Analysis	(Spring 2015)

Other

2017 Summer Institutes on Scientific Teaching, Minneapolis, Jun. 5 - 9

RESEARCH EXPERIENCE

Rose-Hulman Institute of Technology

2017 Rose-Hulman Dean's Summer Professional Development Grant – "Extracting Signals from Tree-Ring Chronologies"

2017 KEEN Summer Course Development Grant – MA 487 Design of Experiments

University of Minnesota

2014 Research Assistantship, National Aeronautics and Space Administration (NASA) Grant #1502546

2013 - 2014 Research Assistantship, National Science Foundation (NSF) Grant #IIS-1029711

SERVICE TO PROFESSION

2017 USPROC (USRESP) Judge

2016 - 2017 Session Chair, Joint Statistical Meetings

2016 AP Statistics Reader

PROFESSIONAL MEMBERSHIPS

2015 - American Statistical Association