6 August 2019

Joshua **Hewitt**

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Education

2019 **Colorado State University,** Fort Collins, CO
- Ph.D., Statistics, *Advised by Jennifer A. Hoeting*
- University graduate teaching certificate, 2018

2009 **Johns Hopkins University,** Baltimore, MD
- M.S.E., Applied Mathematics & Statistics
- B.S. with general honors, Applied Mathematics & Statistics

Experience

2019–present **Duke University,** Durham, NC
- Postdoctoral Associate, Statistical Science, *Advised by Alan E. Gelfand*

2009–2013 **Booz Allen Hamilton,** Annapolis Junction, MD
- Statistical consultant

Publications

2019 1. Hewitt, J., and Hoeting, J. A. (2019). Approximate Bayesian Inference via Sparse grid Quadrature Evaluation for Hierarchical Models. *(Submitted).*

2. Hewitt, J., Fix, M. J., Hoeting, J. A., and Cooley, D. S. (2019). Improved return level estimation via a weighted likelihood latent spatial extremes model. *Journal of Agricultural, Biological, and Environmental Statistics*, https://doi.org/10.1007/s13253-019-00354-6.

2018 3. Hewitt, J., Hoeting, J. A., Done, J. M., and Towler, E. (2018). Remote effects spatial process models for modeling teleconnections. *Environmetrics*, e2523, https://doi.org/10.1002/env.2523.

4. Schmeer, S. R., Kampf, S. K., MacDonald, L. H., Hewitt, J., and Wilson, C. (2018). Empirical models of annual post-fire erosion on mulched and unmulched hillslopes. *Catena*, **163**, 276–287.

2009 5. Vidal, C., Hewitt, J., Davis, S., Younes, L., Jain, S., and Jedynak, B. (2009). Template registration with missing parts: Application to the segmentation of M. tuberculosis infected lungs. In *Biomedical Imaging: From Nano to Macro, 2009. ISBI'09. IEEE International Symposium* on (pp. 718-721). IEEE.

Workshops

2019 Hewitt, J. (2019). Cookies and coding: Data visualization with R. Colorado State University, Fort Collins, Colorado. April 2019.

2015 Hewitt, J., Scharf, H., and Fix, M. (2015). Tutorial on Parallel Programming in R. *American Statistical Association Conference on Statistical Practice*, New Orleans, Louisiana. February 2015.

Software

2019 Hewitt, J. (2019). "`bisque`: Approximate Bayesian Inference via Sparse Grid Quadrature Evaluation (BISQuE) for Hierarchical Models". *R package* `http://CRAN.R-project.org/package=bisque`

2018 Hewitt, J. (2018). "`telefit`: Estimation and Prediction for Remote Effects Spatial Process Models". *R package* `http://CRAN.R-project.org/package=telefit`

Honors

2019 1. (Top Statistics graduate student) James L., M. Leslie, Edna Madison, and Marjorie Pietsch Memorial Award; Department of Statistics, Colorado State University.

2018 2. Wiley-TIES Best Environmetrics Paper Award; The International Environmetrics Society (TIES).

3. Sustainability Leadership Fellow; School of Global Environmental Sustainability, Colorado State University.

2017 4. Student paper award; Section on Statistics and the Environment, American Statistical Association.

5. Education and Service award; Department of Statistics, Colorado State University.

6. Poster award; Department of Statistics, Colorado State University.

2014 7. Summer fellow; Center for Interdisciplinary Mathematics and Statistics, Colorado State University.

2013 8. University graduate fellowship; Colorado State University.

Presentations

Invited talks

2019 1. Remote effects spatial process models for modeling teleconnections. *International Statistics Institute, 62nd World Statistics Congress*, Kuala Lumpur, Malaysia. August, 2019.

2018 2. Improved return level estimation via a weighted likelihood latent spatial extremes model. *Stochastic Weather Generators Conference*, Boulder, Colorado. October, 2018.

Contributed talks

2019 1. Approximate Bayesian Inference via Sparse Grid Quadrature Evaluation for Hierarchical Models. *Joint Statistical Meetings*, Denver, Colorado. July 2019.

2018 2. Improved return level estimation via a weighted likelihood latent spatial extremes model. *Joint Statistical Meetings*, Vancouver, British Columbia. August 2018.

2017 3. Remote effects spatial process models for teleconnection. *Joint Statistical Meetings*, Baltimore, Maryland. August 2017.

Seminars

2018 1. National Center for Atmospheric Research, Boulder, Colorado.

2017 2. University of Chicago, Chicago, Illinois.

2016 3. Colorado State University, Fort Collins, Colorado.

4. National Center for Atmospheric Research, Boulder, Colorado.

2015 5. Colorado State University, Fort Collins, Colorado.

2014 6. Colorado State University, Fort Collins, Colorado.

Posters

2018 1. Hewitt, J., Fix, M. J., Hoeting, J. A., and Cooley, D. S. Improved return level estimation via a weighted likelihood latent spatial extremes model. *ENVR Workshop: Research, Practice and Policy*, Ahseville, North Carolina. October 2018.

2. Hewitt, J., Fix, M. J., Hoeting, J. A., and Cooley, D. S. Improved return level estimation via a weighted likelihood latent spatial extremes model. *Institute for Mathematics and its Applications Workshop on Frontiers in Forecasting*, Minneapolis, Minnesota. February 2018.

2017 3. Bowser, G., Le Mat, A., Hewitt, J., and Wood, T. GoPollinators: Detecting pollination interactions with GoPro and Field cams. *Ecological Society of America Annual Meeting*, Portland, Oregon. August 2017.

4. Hewitt, J., Hoeting, J. A., Done, J. M., and Towler, E. Remote effects spatial process models for modeling teleconnections. *Challenges in the Statistical Modeling of Stochastic Processes for the Natural Sciences*, Banff, Alberta. June 2017.

5. Hewitt, J., Hoeting, J. A., Done, J. M., and Towler, E. A geostatistical model for teleconnections. *Poster session for admitted CSU statistics graduate students*, Fort Collins, Colorado. March 2017.

2016 6. Hewitt, J., Hoeting, J. A., Done, J. M., and Towler, E. A spatial-statistical approach to modeling teleconnections. *The* 13^{th} *International Meeting on Statistical Climatology*, Canmore, Alberta. June 2016.

7. Hewitt, J., Hoeting, J. A., and Done, J. M. Modeling climate teleconnections. *ENVR/EnviBayes Workshop on Bayesian Environmetrics*, Columbus, Ohio. March 2016.

2015 8. Hewitt, J., Wang, H., Leisz, S., and Fisher, C. Morphological and statistical detection of archaeological features in LIDAR imagery. *Poster session for admitted CSU statistics graduate students*, Fort Collins, Colorado. March 2015.

Teaching

Courses taught at Colorado State University

2017 **Statistics for Behavioral Sciences II (STAT 312)**
Instructor; Spring/Fall 2017

2015–2016 **Introduction to Biostatistics (STAT 307)**
Instructor; Spring 2015/2016

2014 **Introduction to Statistics (STAT 301)**
Instructor; Fall 2014

2013–2014 **Introduction to Statistics (STAT 201)**
Teaching assistant; Fall 2013, Spring 2014

Guest lecturer at Colorado State University

2018 **Applied Bayesian statistics (STAA 575)**

2017–2018 **Statistical computing (STAT 400)**

Travel grants

2016–2017 **STATMOS travel grants**
Funding from the NSF-supported Research Network for Statistical Methods for Atmospheric & Oceanic Sciences (STATMOS) to present research at related workshops and conferences.

2016 **Rossbypalooza**
Funding from the University of Chicago to attend a graduate student workshop on climate and statistics.

Service

2018–2019 **Referee**
• Journal of Agricultural, Biological, and Environmental Statistics
• Environmetrics

Session Chair
• Joint Statistical Meetings (2019) – To Open Source, or Not
• Joint Statistical Meetings (2018) – Spatial and Spatiotemporal Modeling in Climate and Meteorology
• Stochastic Weather Generators Conference (2018) – Dynamics and Forecasting

2017–2018 **Stat Alliance at Colorado State University**
Co-Founder of American Statistical Association Student chapter at Colorado State University.

STATMOS liaison at Colorado State University
Liaison to CSU graduate students involved in the NSF-supported STATMOS research network.

2016–2017 **Graduate teaching assistant mentor**
Mentor to junior graduate student instructors at Colorado State University.

2015–2016 **Student-organized activities and research seminars coordinator**
Co-coordinator of student-organized seminar series at Colorado State University.