JESSE WHEELER

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Education

PhD in Statatistics *2020-Present*
Univeristy of Michigan, Ann Arbor, MI.
Thesis Advisor: Edward Ionides

B.S. in Mathematics, Statistics, Minor in Computer Science *2016-2020*
Utah State University (USU), Logan, UT.
Graduated Summa cum laude as valedictorian of the College of Science, class of 2020

Research

Interests

Time Series Analysis via Mechanistic Models
Computational Statistics
Reproducible and Robust Statistics
Applications in infectious disease modeling.

Peer Reviewed Publications

Wheeler, J., Rosengart, A., Jiang, Z., Tan, K., Truetle, N., Ionides, E. (2023) Informing policy via dynamic models: Cholera in Haiti. *Annals of applied statistics.* `https://arxiv.org/abs/2301.08979` **Submitted.**

Wagstaff, J., Bean, B., Wheeler, J., Maguire, M., Sun, Y. (2023) Adaptive Mapping of Design Ground Snow Loads in the Conterminous United States. *Journal of Structural Engineering*, **Submitted**.

Ionides, E. L., Ning, N. and Wheeler, J. (2022). An iterated block particle filter for inference on coupled dynamic systems with shared and unit-specific parameters. *Statistica Sinica*, **accepted**.

Wheeler, J., Bean, B., Maguire, M. (2022). Creating a Universal Depth-to-Load Conversion Technique for the Conterminous United States Using Random Forests. *Journal of Cold Regions Engineering, 36(1), 04021019.* doi:10.1061/(ASCE)CR.1943-5495.0000270

Bean, B., Maguire, M., Sun, Y., Wagstaff, J., Al-Rubaye, S., Wheeler, J., Jarman, S., Rogers, M. (2021). The 2020 National Snow Load Study. *Utah State University.*

White, T., Wheeler, J., Lindstrom, C., Christensen, R., Moon, K. (2021). GPS-Denied Navigation Using SAR Images and Neural Networks. *ICASSP 2021 - 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. Toronto, ON, Canada, 2021, pp. 2395-2399, doi:10.1109/ICASSP39728.2021.9414421.

Conference Presentations

Wheeler, J., Rosengart, A., Jiang, Z., Tan, K., Treutle, N., Ionides., E. (2023). Informing Policy Via Dynamic Models: Cholera in Haiti. Contributed Paper. *Bayes Comp 2023, Satellite Event: Bayesian Inference of Epidemics, Levi, Finland.* **Upcoming, March 2023.**

Wheeler, J., Rosengart, A., Jiang, J., Ionides, E. (2022). Eliminating Cholera in Haiti: Combining Dynamic Models with Data to Inform Vaccination Policy. Contributed Paper. *JSM 2020, Washington D.C.*.

Wheeler, J., Bean, B. (2020). Estimating Snow Water Equivalence Using Easily Obtainable Climate Variables. USU Student Research Symposium.

Wheeler, J., Lindstrom, C., Christensen, R., Moon, K. (2020). Poster: GPS-Denied Navigation Using SAR Images and Neural Networks. *Utah Conference on Undergraduate Research, Logan, UT.*

Christensen, D., Villanueva, I., Wheeler, J., Vicioso, P., Husman, J., Lampkins, S., Youmans, K. (2019). Exploring Potential Relationships Between Self-Efficacy, Performance, and Electrodermal Activity in Engineering Exams. *American Educational Research Association.* April 5-9. Toronto, Canada.

Awards

Honorable Mention NSF GRFP *2022*

Rackham Merit Fellowship, University of Michigan *2020-2025*

URCO Grant, USU *2020*
Award amount: $1000

Other

Teaching

University of Michigan *2022-2023*

Stats 306, *Lab Instructor* (Introduction to Statistical Computing)
Tutor for masters level courses in probability and regression

SISMID (2022). Instructor for a short course on *Simulation based inference for Epidemiological Dynamics* at the Summer Institute in Statistics Modeling in Infectious Diseases (SISMID). University of Washington.

Utah State University *2017-2020*

Math 0995, *Recitation Leader* (Remedial Algebra)
Math 1210, *Recitation Leader* (Introductory Calculus)
Math 1220 *Recitation Leader* (Calculus II, sequences and series)
Stats 1040, *Recitation Leader*, (Introductory Statistics, non-Calculus based)

Mentoring

Undergraduate projects and thesis: Kevin Tan (2022), Noah Treutle (2022) and Bo Yang (Present).

Awards

Outstanding Undergraduate Recitation Leader *2019*
USU Mathematics and Statistics Department

Service

Computing Club Committee Member, UM Statistics Department *2022-Present*

Peer Review: PLoS computation biology *2021*

President, USU Data Science Club *2019-2020*