Spencer Woody

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EDUCATION

Ph.D. in Statistics   Aug 2016 – May 2021 (expected)
University of Texas at Austin
Dissertation Committee: James G. Scott (co-advisor), Jared S. Murray (co-advisor),
Carlos M. Carvalho, Corwin Zigler, and Peter Hoff

B.S. in Economics and Statistical Science (dual major)   Aug 2011 – May 2015
Duke University, Durham, NC

PRE-PRINTS & PAPERS UNDER REVIEW

- **Woody, Spencer**, Carlos M. Carvalho, and Jared S. Murray. "Model interpretation through lower-dimensional posterior summarization." *arXiv. preprint arXiv:1905.07103* (2020). Under revision for publication at *Journal of Computational and Graphical Statistics*.

- **Woody, Spencer**, Oscar Hernan Madrid Padilla, and James G. Scott. "Optimal post-selection inference for sparse signals: a nonparametric empirical-Bayes approach." *arXiv preprint. arXiv:1810.11042* (2020).

- **Woody, Spencer**, Carlos M. Carvalho, and Jared S. Murray. "Bayesian inference for treatment effects under nested subsets of controls." *arXiv preprint. arXiv:2001.07256* (2020).

- **Woody, Spencer**, Novin Ghaffari, and Lauren Hund. "Bayesian Model Calibration for Extrapolative Prediction via Gibbs Posteriors." *arXiv preprint. arXiv:1909.05428* (2019).

PEER-REVIEWED JOURNAL ARTICLES

- Feider, Clara L., **Spencer Woody**, Suzanne Ledet, Jialing Zhang, Katherine Sebastian, Michael T. Breen, and Livia S. Eberlin. "Molecular Imaging of Endometriosis Tissues using Desorption Electrospray Ionization Mass Spectrometry." *Scientific Reports* **9**, 15690 (2019).

- DeHoog, Rachel J., Jialing Zhang, Elizabeth Alore, John Q. Lin, Wendong Yu, **Spencer Woody**, Christopher Almendariz, Monica Lin, Anton F. Engelsman, Stan B. Sidhu, Robert Tibshirani, James Suliburk, and Livia S. Eberlin. "Preoperative metabolic classification of thyroid nodules using mass spectrometry imaging of fine-needle aspiration biopsies." *Proceedings of the National Academy of Sciences* Oct 2019, **116** (43) 21401–21408.

- Carvalho, Carlos, Avi Feller, Jared Murray, **Spencer Woody**, and David Yeager. "Assessing Treatment Effect Variation in Observational Studies: Results from a Data Challenge." *Observational Studies*, **5** 21–35 (2019).

TALKS & PRESENTATIONS

- "Model Interpretation through Posterior Summarization." SDS Seminar Series, University of Texas at Austin. Oct 2019.

- "Posterior Summarization for the Causal Linear Model." Poster presentation. Atlantic Causal Inference Conference, McGill University, Montreal, Canada. May 2019.

- "Bayesian model calibration using preposterior generalized cross-validation." Invited talk. Uncertainty Quantification Mini Workshop, University of Texas at Austin. Sep 2018.

- "Bayes-optimal post-selection inference in spatial modeling." Contributed talk. World Meeting of the International Society of Bayesian Analysis, University of Edinburgh, United Kingdom. Jun 2018.

EMPLOYMENT

Research Assistant for Professor Carlos Carvalho   Aug 2018 – present
Department of Information, Risk, and Operations Management
University of Texas at Austin McCombs School of Business

Research Intern for Sandia National Laboratories   Aug 2017 – Jun 2018
Albuquerque, NM
Supervisor: Dr. Lauren Hund

Research Assistant for Eberlin Research Group   Aug 2017 – Jun 2018
Department of Chemistry
University of Texas at Austin

Research Assistant for Professor Mike Daniels   Jan 2017 – May 2017
Department of Statistics and Data Sciences
University of Texas at Austin

HONORS & AWARDS

- University Graduate Continuing Fellowship (2020 – 2021)
  The University of Texas at Austin

PROFESSIONAL MEMBERSHIPS

- American Statistical Association, since 2016

- International Society for Bayesian Analysis, since 2017

PROFESSIONAL SERVICE

Reviewer for:
- *Journal of Computational and Graphical Statistics*, *Annals of Applied Statistics*

SOFTWARE

R package `saFAB` for Bayes-optimal selection-adjusted confidence sets. Companion R package to the paper by Woody & Scott (2018), "Optimal post-selection inference for sparse signals: a nonparametric empirical-Bayes approach." *arXiv:1810.11042*. Available at `github.com/spencerwoody/saFAB`