

Elizabeth (Betsy) Bersson

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EMPLOYMENT

- **Massachusetts Institute of Technology** Cambridge, MA
Postdoctoral Researcher, with Tamara Broderick September 2024 – present
- **NIEHS/NIH; Biostatistics and Computational Biology Branch** Durham, NC
Graduate Summer Intern June 2023 – July 2023
- **The Federal Reserve Board; Macroeconomics and Quantitative Studies** Washington, DC
Senior Research Assistant June 2017 – June 2019

EDUCATION

- **Duke University** Durham, NC
Statistical Science, PhD Aug. 2019 – May 2024
- **The University of Alabama** Tuscaloosa, AL
Applied Statistics, MS Jan. 2016 – May 2017
Mathematics, BS with honors, minor in Economics Aug. 2013 – May 2017

PUBLICATIONS AND PREPRINTS

- ‘Contributed Discussion to ‘Sparse Bayesian factor analysis when the number of factors is unknown’, by Frhwirth-Schnatter, S., Hosszejini, D., and Lopes, F. L.’, **E. Bersson**, *Bayesian Analysis*, 2024.
- ‘Frequentist Prediction Sets for Species Abundance Using Indirect Information’, **E. Bersson** and P.D. Hoff, *Journal of the Royal Statistical Society: Series A, with discussion*, 2024.
- ‘Bayesian Covariance Estimation for Multi-group Matrix-variate Data’, **E. Bersson** and P.D. Hoff, *Bayesian Analysis*, 2024.
- ‘Optimal Conformal Prediction for Small Areas’, **E. Bersson** and P.D. Hoff, *Journal of Survey Statistics and Methodology*, 12(5): 1464-1488, 2024. **2023 GSS/SRMS/SSS Student Paper Competition Winner**
- ‘Bounded Rationality, Sticky Prices, and the Zero Lower Bound’, **E. Bersson**, P. Hürtgen, and M. Paustian, *Journal of Money, Credit, and Banking*, 2023.

WORKING PAPERS

- ‘Covariance Meta Regression’, **E. Bersson** and D. Dunson, *in preparation*.
- ‘Comparison of Frequentist and Bayesian Penalization Methods for Environmental Mixture Analyses’, **E. Bersson**, M. Lee, R. Lu, Z. Chen, S. Zhao, *in preparation*.

TALKS AND POSTERS

- ‘Covariance Meta Regression’, invited talk at IDWSDS, 2024
- ‘Frequentist Prediction Sets for Species Abundance Using Indirect Information’, *with discussion*, invited talk with travel support at RSS Annual Conference, 2024
- ‘Covariance Meta Regression’, contributed talk at ISBA, 2024
- ‘Bayesian Covariance Estimation for Multi-group Matrix-variate Data’, invited talk at ISNPS, 2024
- ‘Bayesian Covariance Estimation for Multi-group Matrix-variate Data’, contributed talk at BAYSM, 2023
- ‘Bayesian Covariance Estimation for Multi-group Matrix-variate Data’, contributed poster with travel grant at the New Frontiers in Reliability and Risk Analysis Symposium: A Tribute to Nozer D. Singpurwalla, 2023

- ‘*Optimal Conformal Prediction for Small Areas*’, contributed talk with travel grant at JSM 2023
- ‘*Optimal Conformal Prediction for Small Areas*’, invited poster with travel grant at Notre Dame Future Faculty Workshop 2023
- ‘*Optimal Conformal Prediction for Small Areas*’, contributed poster with travel grant at ISBA 2022
- ‘*Supporting mentored undergraduate research in statistics* ’ with Joan Combs-Durso, Yue Jiang, and Edric Tam, contributed talk at ECOTS 2022

MENTORSHIP

- **Mentor** Duke University
Undergraduate Thesis Proposal Writing Workshop *May 2024*
 - Mentored 4 undergraduates writing their senior thesis proposals.
- **Project Manager** Duke University
Mental Health and the Justice System; Data+ *Summer 2022*
 - Mentored a team of 3 undergraduates on a research project analyzing the relationship between mental health services and the justice system in Durham County, NC.
- **Graduate Mentor** Duke University
INvestigating Febrile Deaths In Tanzania (INDITe) *Spring 2022*
 - Mentored an undergraduate statistician completing an independent study focused on estimating disease etiology for participants who experienced febrile deaths in Tanzania using a nested partially latent class model.
- **Graduate Mentor** Duke University
Undergraduate Introduction to Research in Statistical Science Workshop *May 2021*
 - Mentored a team of five undergraduates with varying degrees of research experience on a research project assessing the effectiveness of two common drugs used to prevent opioid relapse.
 - The project won 1st place in the USCLAP competition.

TEACHING EXPERIENCE

- **Instructor** Duke University
STA 199: Introduction to Data Science and Statistical Thinking *Summer 2024*
- **Teaching Assistant** Duke University
Stat Inference, Regression Analysis (Head TA), Case Studies,
Statistical Consulting, Data Science (Head TA) *Duke University*
Discrete Mathematics, Applied Diff Eq II *The University of Alabama*

MISCELLANEOUS SERVICE

- Co-organizer of Women in Statistics Events, Department of Statistical Science, Duke University, 2022-2024
- Served on Graduate Consultative Committee, Department of Statistical Science, Duke University, 2022-2023

HONORS AND AWARDS

- Travel grant to attend *Preparing to Teach Statistics Workshop* at University of Toronto Scarborough, 2023
- ASA GSS/SRMS/SSS Student Paper Competition Award Winner with travel award, JSM 2023
- Funded invitation to attend Future Faculty Workshop, Notre Dame 2023
- Junior researcher travel award, ISBA 2022
- Funded by NSF TRIPODs grant, Fall 2021
- Applied Statistics Masters Student of the Year, The University of Alabama 2017