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

- *'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*, 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**, D. Dunson, and P.D. Hoff, *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

- *'Frequentist Prediction Sets for Species Abundance Using Indirect Information'*, invited talk 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**
  Stat Inference, Regression Analysis (Head TA), Case Studies, *Duke University*
  Statistical Consulting, Data Science (Head TA)
  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