Heejun Shin

CONTACT Department of Biostatistics Email: heejunshin@hsph.harvard.edu Harvard T.H. Chan School of Public Health *Webpage: hshin111.github.io* 655 Huntington Avenue Building 2 Room 435 Boston, MA 02115 **INTERESTS** Causal Inference, Bayesian Nonparametric Models, Environmental Statistics **EMPLOYMENT** Postdoctoral Research Fellow, Harvard University 2024-present Advisor: Professor Francesca Dominici **EDUCATION** 2024 Ph.D. in Statistics, University of Florida Thesis: Causal Inference with Bayesian Modeling for Challenging Environmental Health Problems *Advisior:* Professor Joseph Antonelli **B.S.** in Applied Statistics, Konkuk University 2019 Ranked first in class **PUBLICATIONS &** Shin, H., Linero, A., Audirac, M., Irene, K., Braun, D., and Antonelli, J. (2024+). Treatment effect heterogeneity **PREPRINTS** and importance measures for multivariate continuous treatments. arXiv:2404.09126. Under Revision, Annals of Applied Statistics [Link] Shin, H., Braun, D., Irene, K., and Antonelli, J. (2023+). A spatial interference approach to account for mobility in air pollution studies with multivariate continuous treatments. arXiv:2305.14194. Under Revision, Journal of the American Statistical Association [Link] Shin, H. and Antonelli, J. (2023). Improved inference for doubly robust estimators of heterogeneous treatment effects. *Biometrics*, 79(4): 3140–3152. [Journal][arXiv] **HONORS &** Early Career Paper Award, American Statistical Association Biometrics Section 2024 **AWARDS** Kenneth and Janet Keene Endowed Dissertation Fellowship, College of Liberal Arts and Sciences, University of Florida 2024 Mark CK Yang Student Research Award, UF Joint Statistics and Biostatistics Workshop 2023 Boyd Harshburger Travel Award funded by National Science Foundation, The Southern Regional Council on Statistics 2022 The John Van Ryzin Award for the best student paper of the year, International Biometric Society Eastern North American Region 2022 Distinguished Student Paper Award, International Biometric Society Eastern North American Region 2022 College of Liberal Arts and Sciences Graduate Student Travel Award, University of Florida - Joint Statistical Meetings 2023 - Eastern North American Region Spring Meeting, Joint Statistical Meetings 2022 2019 The President's Award for an outstanding graduating undergraduate student, Korean Statistical Society **Academic Excellence Scholarship** - Chungbuk Human Resource Development Foundation 2018 - The South Korean National Agricultural Cooperative Federation 2018 - Konkuk University 2013-2018

INVITED PRESENTATIONS

Seminar talk. "Treatment effect heterogeneity and importance measures for multivariate continuous treatments" *Konkuk University*. Seoul, Korea 2024.

Seminar talk. "Improved inference for doubly robust estimators of heterogeneous treatment effects" *WebENAR*. Virtual 2024.

Seminar talk. "Identifying Interactions between Covariates and Continuous Exposures via Targeted Smoothing" *UFSTAT Student Seminar Series*. Gainesville, FL. 2023.

CONTRIBUTED PRESENTATIONS

Contributed talk (as an Early Career Paper Award recipient). "Treatment effect heterogeneity and importance measures for multivariate continuous treatments" *Joint Statistical Meetings*. Portland, OR. 2024.

Contributed talk. "A spatial interference approach to account for mobility in air pollution studies with multivariate continuous treatments" Bayesian Young Statisticians Meeting. Virtual. 2023.

Contributed talk. "A spatial interference approach to account for mobility in air pollution studies with multivariate continuous treatments" UF Joint Statistics and Biostatistics Workshop. Gainesville, FL. 2023.

Contributed talk. "A spatial interference approach to account for mobility in air pollution studies with multivariate continuous treatments" Joint Statistical Meetings. Toronto, Canada. 2023.

Contributed poster. "Causal Effects of Continuous Exposures in the Presence of Spatial Interference: the Effects of Air Pollution on Public Health." American Causal Inference Conference. Austin, TX. 2023.

Contributed poster. "Improved inference for doubly robust estimators of heterogeneous treatment effects." The Southern Regional Council on Statistics Summer Research Conference. Jekyll Island, GA. 2022.

Contributed talk. "Improved inference for doubly robust estimators of heterogeneous treatment effects." Joint Statistical Meetings. Washington, D.C. 2022.

Contributed talk (as the John Van Ryzin Award winner). "High-dimensional and nonparametric Bayesian methodology for treatment effect heterogeneity." Eastern North American Region Spring Meeting. Houston, TX. 2022.

TEACHING EXPERIENCE

Guest Lecturer, Harvard University BST228 - Applied Bayesian Analysis

Instructor, University of Florida 2023

STA3024 - Introduction to Statistics II

Teaching Assistant, University of Florida

2019-2023

STA 3024 - Introduction to Statistics II

STA 4241 - Statistical Learning

STA 4321 - Introduction to Probability

STA 4322 - Introduction to Statistical Theory STA 4502 - Nonparametric Statistical Methods

STA 6166 - Statistical Methods in Research

SERVICE

Organizer, UFSTAT Student Seminar Series, Department of Statistics, University of Florida Journal Referee, PeerJ: life and environment

2022-2023

2024

REFERENCES Dr. Joseph Antonelli

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Dr. Francesca Dominici

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[CV compiled on 2024-11-28]