

Heejun Shin

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CONTACT	Department of Biostatistics Harvard T.H. Chan School of Public Health 655 Huntington Avenue Building 2 Room 435 Boston, MA 02115	Email: heejunshin@hsph.harvard.edu Webpage: hshin111.github.io
INTERESTS	Causal Inference, Bayesian Nonparametric Models, Environmental Statistics	
EMPLOYMENT	Postdoctoral Research Fellow , Harvard University Mentor: Professor Francesca Dominici	2024–present
EDUCATION	Ph.D. in Statistics, University of Florida Thesis: Causal Inference with Bayesian Modeling for Challenging Environmental Health Problems Advisor: Professor Joseph Antonelli B.S. in Applied Statistics, Konkuk University Ranked first in class	2024 2019
PUBLICATIONS & PREPRINTS	<p>[3] Shin, H., Linero, A., Audirac, M., Irene, K., Braun, D., and Antonelli, J. (2024+). Treatment effect heterogeneity and importance measures for multivariate continuous treatments. arXiv:2404.09126. <i>Under Revision, Annals of Applied Statistics</i> [Link]</p> <ul style="list-style-type: none">• Winning paper of the 2024 ASA Biometrics Section Early Career Paper Awards.• Honorable mention paper of the 2024 ASA ENVR Section Student Paper Competition. (Declined) <p>[2] 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. <i>Under Revision, Journal of the American Statistical Association</i> [Link]</p> <ul style="list-style-type: none">• Winning paper of the 2025 ASA Epidemiology Section Norman Breslow Prize.• Winning paper of the 2025 ASA HPSS Section Student Paper Competition. (Declined) <p>[1] Shin, H. and Antonelli, J. (2023). Improved inference for doubly robust estimators of heterogeneous treatment effects. <i>Biometrics</i>, 79(4): 3140–3152. [Journal][arXiv]</p> <ul style="list-style-type: none">• Winning paper of the 2022 ENAR John Van Ryzin Award.	
HONORS & AWARDS	<p>The Norman Breslow Prize for the top paper among the winning papers of the Early Career Paper Awards, American Statistical Association Statistics in Epidemiology Section 2025</p> <p>Early Career Paper Award, American Statistical Association Biometrics Section 2024</p> <p>Kenneth and Janet Keene Endowed Dissertation Fellowship, College of Liberal Arts and Sciences, University of Florida 2024</p> <p>Mark CK Yang Student Research Award, UF Joint Statistics and Biostatistics Workshop 2023</p> <p>Boyd Harshburger Travel Award funded by National Science Foundation, The Southern Regional Council on Statistics 2022</p> <p>The John Van Ryzin Award for the top paper among the winning papers of the Distinguished Student Paper Awards, International Biometric Society Eastern North American Region 2022</p> <p>College of Liberal Arts and Sciences Graduate Student Travel Award, University of Florida</p> <ul style="list-style-type: none">- Joint Statistical Meetings 2023- Eastern North American Region Spring Meeting, Joint Statistical Meetings 2022 <p>The President’s Award for an outstanding undergraduate student, Korean Statistical Society 2019</p> <p>Academic Excellence Scholarship</p> <ul style="list-style-type: none">- Chungbuk Human Resource Development Foundation 2018- The South Korean National Agricultural Cooperative Federation 2018- Konkuk University 2013-2018	
INVITED PRESENTATIONS	Seminar talk. “A Spatial Interference Approach to Account for Mobility in Air Pollution Studies with Multivariate Continuous Treatments” <i>London School of Hygiene & Tropical Medicine</i> . Virtual 2025.	

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 the Norman Breslow Prize winner). “A spatial interference approach to account for mobility in air pollution studies” *Joint Statistical Meetings*. Nashville, TN. 2025.

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 2024
BST228 - Applied Bayesian Analysis

Instructor, University of Florida 2023
STA3024 - Introduction to Statistics II

Teaching Assistant, University of Florida 2019–2023
STA3024 - Introduction to Statistics II STA4322 - Introduction to Statistical Theory
STA4241 - Statistical Learning STA4502 - Nonparametric Statistical Methods
STA4321 - Introduction to Probability STA6166 - Statistical Methods in Research

SOFTWARE

SepBART: An R package for estimating heterogeneous treatment effects of multivariate continuous exposures (<https://github.com/hshin111/SepBART>)

SERVICE

Organizer, *UFSTAT Student Seminar Series*, Department of Statistics, University of Florida 2022-2023
Journal Referee, *PeerJ: life and environment*

REFERENCES

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