Bokgyeong Kang

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Education

Ph.D in Statistics, The Pennsylvania State University, USA   **2018–Present**
- Advisors: Dr. Murali Haran and Dr. John Hughes

M.A. in Applied statistics, Yonsei University, South Korea   **2016–2018**
- Advisor: Dr. Taeyoung Park
- Master's Thesis Title: Flexible modeling of clusters in asset prices using the nested Dirichlet process

B.A. in Business administration and Applied statistics, Yonsei University, South Korea   **2009–2016**

Honors and Awards

- Poster Award, International Society for Bayesian Analysis (ISBA)   2022
- Award for Support of Pedagogy in Graduate Instruction, The Pennsylvania State University   2021
- Distinguished Graduate Fellowship, The Pennsylvania State University   Fall 2018–Spring 2019
- Graduated with High Honors, Yonsei University   2016

Research interests

Statistical computing; Markov chain Monte Carlo algorithms; models for spatial and spatiotemporal data; infectious disease modeling

Publications

Manuscripts in Preparation
- **Bokgyeong Kang**, John Hughes, and Murali Haran. (2023+). "A spatio-temporal self-exciting point process for invasive food-and-mouth disease occurrence in Turkey"
- **Bokgyeong Kang**, John Hughes, and Murali Haran. (2023+). "A spatial zero-inflated Conway–Maxwell–Poisson regression model for US vaccine refusal" [Link]

Submitted Articles
- **Bokgyeong Kang**, John Hughes, and Murali Haran. (2022+). "Diagnostics for Monte Carlo algorithms for models with intractable normalizing functions." *Under review.* [Link]
- **Bokgyeong Kang**, Sandra Goldlust, Elizabeth Lee, John Hughes, Shweta Bansal, and Murali Haran. (2022+). "Spatial distribution and determinants of childhood vaccination refusal in the United States." *Revision submitted.* [Link]

Published Articles
- **Bokgyeong Kang** and Taeyoung Park. (2019). "Efficient and flexible model-based clustering of jumps in diffusion processes" *Journal of the Korean Statistical Society*. 48(3) [Link]

PRESENTATIONS

- A zero-inflated Conway–Maxwell–Poisson regression model with spatially varying dispersion for spatiotemporal data of US vaccine refusal
  - 2022 ENVR Workshop; Provo, UT, USA; Oct 6–8, 2022
  - 2022 Joint Statistical Meetings; Washington, DC, USA; Aug 06–11, 2022
  - 2022 World Meeting of the International Society for Bayesian Analysis; Montreal, QC, Canada; June 26–July 01, 2022
- Diagnostics for Monte Carlo algorithms for models with intractable normalizing functions
  - 2021 Joint Statistical Meetings (virtual); Aug 08–12, 2021
  - 2021 World Meeting of the International Society for Bayesian Analysis (virtual); June 28–July 02, 2021
- A zero-inflated negative binomial regression model for spatiotemporal data of US vaccine refusal
  - 2021 MIDAS Network Annual Meeting (virtual); May 10–13, 2021

TEACHING EXPERIENCE

The Pennsylvania State University

Graduate Instructor

- MATH/STAT318 - Elementary Probability   Fall 2021, Spring 2022

Graduate Assistant

- STAT515 (Grad) - Stochastic Processes and Monte Carlo Methods   Spring 2021
- STAT416 - Stochastic Modeling   Fall 2020
- STAT200 - Elementary Statistics   Fall 2019, Spring 2020

Yonsei University

Graduate Instructor

- STA2104 - Computer Programming   Spring 2018

Graduate Assistant

- STA3126 - Mathematical Statistics I   Fall 2016, Fall 2017
- STA1001 - Introduction to Statistics   Fall 2016, Spring 2017, Fall 2017
- STA3124 - Stochastic Process   Spring 2017

VOLUNTEER EXPERIENCE

Reviewer for International Journals and Conferences

- Journal of the American Statistical Association (JASA)
- Journal of Computational and Graphical Statistics (JCGS)