Bokgyeong Kang

Durham, NC, USA
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Updated on May 27, 2024

Work experience

Postdoctoral Associate in Statistical Science, Duke University, USA **2023–present**

- Mentors: Dr. Alan Gelfand (Duke), Dr. Erin Schliep (NC State), and Dr. Robert Schick (Southall Environmental Associates)

Education

Ph.D in Statistics, The Pennsylvania State University, USA **2018–2023**

- Advisors: Dr. Murali Haran and Dr. John Hughes
- Dissertation Title: Computational methods and spatial models with intractable likelihoods

M.A. in Applied statistics, Yonsei University, South Korea **2016–2018**

- Advisor: Dr. Taeyoung Park
- 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; spatial Statistics; environmental science; ecology; infectious disease modeling

Publications

- **Bokgyeong Kang**, Erin M. Schliep, Alan E. Gelfand, and Robert S. Schick. (2024+) “Assessing whale abundance and food availability through data function.” In preparation.
- **Bokgyeong Kang**, John Hughes, and Murali Haran. (2024+). “A spatio-temporal self-exciting point process for invasive food-and-mouth disease occurrence in Turkey.” In preparation.
- **Bokgyeong Kang**, Erin M. Schliep, Alan E. Gelfand, Tina M. Yack, Christopher W. Clark, and Robert S. Schick. (2024+) “Analyzing whale calling through Hawkes process modeling.” Submitted. [Link]
- **Bokgyeong Kang**, John Hughes, and Murali Haran. (2023+). “Fast Bayesian inference for spatial mean-parameterized Conway–Maxwell–Poisson models.” Revision submitted. [Link]
- **Bokgyeong Kang**, John Hughes, and Murali Haran. (2023+). “Measuring sample quality in algorithms for intractable normalizing function problems.” Revision submitted. [Link]
- **Bokgyeong Kang**, Sandra Goldlust, Elizabeth Lee, John Hughes, Shweta Bansal, and Murali Haran. (2023). “Spatial distribution and determinants of childhood vaccination refusal in the United States.” *Vaccine*, 41(20) [Link]
- **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]

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Presentations

- A spatial zero-inflated Conway–Maxwell–Poisson regression model for US vaccine refusal
  - 2023 IRSA Conference; Minneapolis, MN, USA; May 18–20, 2023
  - 2023 ENAR Spring Meeting; Nashville, TN, USA; Mar 19–22, 2023
  - 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 normalising 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
- Spatial distribution and determinants of childhood vaccination refusal in the United States
  - 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

- STAT540 (Grad) - Statistical Computing — Spring 2023
- 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)
- Journal of Machine Learning Research (JMLR)