

Seongmin Kim

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EDUCATION **Ph.D. Candidate, Statistics**

Department of Statistics, Seoul National University, Korea
• Advisor: Professor Jaeyong Lee

Bachelor of Science, Statistics

February 2019

Department of Statistics, Seoul National University, Korea

RESEARCH INTERESTS

Bayesian Statistics, Asymptotic Statistics, High-Dimensional Statistics, Co-variance.

RESEARCH PAPERS

ACCEPTED or PUBLISHED

- Lee, J., Kim, J., Shin, J., Cho, S., **Kim, S.**, and Lee, K. (2023). Analysis of wildfires and their extremes via spatial quantile autoregressive model. *Extremes*, 26(2), 353-379.

IN-PREPARATION

- Lee, K., **Kim, S.**, Jo, S., and Lee, J. (2024+). Estimation of World Seroprevalence of SARS-CoV-2 antibodies. <https://arxiv.org/abs/2201.13124>.

CONFERENCE PRESENTATIONS

- Estimation of World Seroprevalence of SARS-CoV-2 antibodies.
– 2023 Journal of the Korean Statistical Society Summer Conference

TEACHING EXPERIENCES

Teaching Assistant

2019 - Current

Seoul National University, Korea

- Statistics
- Statistics Lab
- Mathematical Statistics
- Theories of Statistics

SNU Statistical Research Institute, Korea

- Data Science with R/Python

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| RESEARCH PROJECTS | <p><i>Analysis of wildfires and their extremes via spatial quantile autoregressive model.</i></p> <p><i>This work is joint research with Jongmin Lee, Joonpyo Kim, Junho Shin, Sungjin Jo, Hee-Seok Oh and Kyoungjae Lee 2021 - 2023.</i></p> |
| NON-RESEARCH PROJECTS | <p><i>“Statistical/probabilistic research on the risk of defective occurrence during reliability testing and measures to reduce risk by securing additional sampling”</i></p> <p>Samsung Electronics Co., Ltd., 2021-.</p> |
| LAB SEMINAR | <ul style="list-style-type: none"> • <i>Bayesian Two-Stage method for estimating ODE parameters</i> December 2020 • <i>No-U-Turn Sampler :Adaptively Setting Path Lengths in HMC</i> March 2021 • <i>Bayesian Inference over the Stiefel Manifold via the Givens Representation</i> August 2021 • <i>Jacobians of Matrix Transforms</i> October 2021 • <i>Bayesian causal inference in probit graphical models</i> December 2021 • <i>Extrinsic Gaussian Processes for Regression and Classification on Manifolds</i> February 2022 • <i>Matrix Derivatives</i> September 2022 • <i>Eigen-Structure of Sample Covariance</i> October 2022 • <i>Sparse spiked covariance model</i> February 2023 • <i>Shrinkage Inverse Wishart</i> June 2023 • <i>Gaussian copula</i> November 2023 |

List of Seminar in Laboratory. The slides are available on Github.

**SKILLS AND
OTHER IN-
FORMATION**

Programming Languages

Python, R.

Natural Languages

Korean (native) and English.