Jia Gu

Ph.D candidate | gujia@pku.edu.cn | https://jia-gu.github.io

EDUCATION

Center for Statistical Science — **Peking University**
Ph.D candidate in Statistics — Sep. 2019 - Present

Department of Mathematics — **Nankai University**
B.S. in Statistics — Sep. 2015 - Jun. 2019

RESEARCH INTERESTS

Distributed Inference, Federated Learning, Data Fusion, Epidemic Statistical modeling

PAPERS

- **Gu, J.**, Tang, C.Z., Yan, H., Cui, Q., Li, L.F. and Zhou, J. (2023). FAST: a Fused and Accurate Shrinkage Tree for Heterogeneous Treatment Effects Estimation. *Accepted at the Conference on Neural Information Processing Systems (NeurIPS)*.
- **Gu, J.** and Chen, S.X. (2023). Statistical Inference for Decentralized Federated Learning. *Reject with resubmission at the Annals of Statistics*.
- **Gu, J.** and Chen, S.X. (2023). Distributed Statistical Inference under Heterogeneity. *Accepted with minor revision at the Journal of Machine Learning Research*.
- Zhu, Y.R., **Gu, J.**, Qiu, Y.M. and Chen, S.X. (2023). Estimating COVID-19 Vaccine Protection Rates via Dynamic Epidemiological Models – A study of 10 countries. *Accepted at the Annals of Applied Statistics*.
- Zhu, Y.R., **Gu, J.**, Qiu, Y.M. and Chen, S.X. (2023). Real-World COVID-19 Vaccine Protection Rates against Infection in the Delta and Omicron Eras. *Research*.
- **Gu, J.**, Chen, S.X., Dong, Q. and Qiu, Y.M. (2021). The Effect of Population Migration and Wuhan Lockdown on the Control of COVID-19 Based on vSEIdRm Model (in Chinese). *Statistical Research (CSSCI)*, 38:114-127.
- Yan, H., Zhu, Y., **Gu, J.**, Huang, Y., Sun, H.X., Zhang, X.Y., Wang, Y.Q., Qiu, Y.M. and Chen, S.X. (2021). Better Strategies for Containing COVID-19 Pandemic–A Study of 25 Countries via a vSIADR Model. *Proceeding of the Royal Society A*, 477(2248): 20200440.
- **Gu, J.**, Yan, H. , Huang Y.X., Zhu, Y.R., Sun H.X., Qiu, Y.M. and Chen, S.X. (2020). Comparing containment measures among nations by epidemiological effects of COVID-19. *National Science Review*, 7: 1847–1851. doi: 10.1093/nsr/nwaa243.
- Sun, H.X., Qiu, Y.M., Yan, H., Huang, Y.X., Zhu, Y.R., **Gu, J.** and Chen, S.X. (2020). Tracking reproductivity of COVID-19 epidemic in China with varying coefficient SIR model (with discussion). *Journal of Data Science*, 18(3): 455-472.

AWARDS AND HONORS

- Minglve Innovation Scholarship, Peking University — 2021
- Merit Student, Nankai University — 2017
- National Scholarship, Nankai University — 2016, 2017

TEACHING ASSISTANT

Large Sample Theory — Fall 2023
Undergraduate and postgraduate course by Prof. Songxi Chen

Data Analysis and Statistical Decision-making — Spring 2021
MBA course by Prof. Songxi Chen

Large Sample Theory — Fall 2021
Undergraduate and postgraduate course by Prof. Songxi Chen and Prof. Xiaojun Song

Multivariate Analysis — Fall 2019
Undergraduate course by Prof. Fang Yao

ADDITIONAL SKILLS

- Programming: Proficient in LaTeX, R, python; Familiar with C++, MatLab
- Languages: Mandarin (native), English (fluent, CET-6: 600, CET-4: 656)