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, supervised by Prof. Songxi Chen   Sep. 2019 - Present

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

RESEARCH INTERESTS

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

INVITED TALKS

The first Joint Conference on Statistics and Data Science in China   2023.07

PAPERS

1. **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. *Advances in Neural Information Processing Systems (NeurIPS), to appear*.

2. **Gu, J.** and Chen, S.X. (2023). Statistical Inference for Decentralized Federated Learning. $\mathcal{R\&R}$ *at The Annals of Statistics*.

3. **Gu, J.** and Chen, S.X. (2023). Distributed Statistical Inference under Heterogeneity. *Accepted with minor revision at The Journal of Machine Learning Research*.

4. 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. *The Annals of Applied Statistics, to appear*.

5. 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*, 2023:6;0099. doi:10.34133/research.0099.

6. **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*, 38:114-127.

7. 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.

8. **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.

9. 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

- Lingjun Pilot Scholarship, Peking University   2023
- Minglve Innovation Scholarship, Peking University   2021
- Merit Student, Nankai University   2017
- National Scholarship, Nankai University   2016, 2017

TEACHING ASSISTANT

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

Large Sample Theory   Spring 2021, Fall 2023
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)