

# Jia Gu

Assistant Professor | [gujia@zju.edu.cn](mailto:gujia@zju.edu.cn) | <https://jia-gu.github.io>

## Employment

Assistant Professor, Center for Data Science, Zhejiang University

2024.08 - now

## Education

**Center for Statistical Science**  
*Ph.D. in Statistics. Advisor: Prof. Song Xi Chen*

**Peking University**  
Sep. 2019 - Jun. 2024

**School of Mathematics**  
*B.Sc. in Statistics*

**Nankai University**  
Sep. 2015 - Jun. 2019

## Research Interests

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

## Research

- Xiao, Z. L., **Gu, J.** and Chen, S.X. (2024+). Testing for Heterogeneity in Distributed Statistical Learning, *manuscript*.
- Gu, J.** and Chen, S.X. (2024). Statistical Inference for Decentralized Federated Learning. *The Annals of Statistics*.
- 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)*.
- Gu, J.** and Chen, S.X. (2023). Distributed Statistical Inference under Heterogeneity. *Journal of Machine Learning Research*, 24:1 - 57 .
- 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*, 17(4): 3324-3348.
- 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.
- 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 vSEI<sub>d</sub>R<sub>m</sub> Model (in Chinese). *Statistical Research*, 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. *Proceedings 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.

## ACADEMIC SERVICE

- Journal of Nonparametric Statistics, reviewer
- Journal of Multivariate Analysis, reviewer
- Journal of Statistical Planning and Inference, reviewer

## Invited Presentations

- The 1st JCSDS, Beijing, China 2023.07
- The 37th NeurIPS, New Orleans, USA 2023.12
- The 2ed JCSDS, Kunming, China 2024.07
- The 18th CFE-CMStatistics, London, UK 2024.12

## TEACHING

Topics on Engineering Frontier Technology  
Asymptotic Statistics

Fall 2024  
Spring 2025