Zifeng Zhang

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Education

Ph.D. in Statistics 2019 — present
Colorado State University, Fort Collins, Colorado
Advisor: Prof. Wen Zhou
Co-advisor: Prof. Haonan Wang
GPA: 4.0/4.0

M.A.S. in Applied Statistics 2016 – 2018
Nankai University, Tianjin, China
GPA: 87.9/100

B.A. in Economics, Specialization in Insurance 2012 – 2016
Nankai University, Tianjin, China
GPA: 87.9/100

Research Interests

- High-dimensional statistics
- Causal inference, interference, mediation analysis
- Network analysis, graphical modeling
- Tensor data analysis

Publications and Manuscripts

1. **Zhang, Z.**, Ding, P., Zhou, W., and Wang, H. (2024+) With random regressors, least squares inference is robust to correlated errors with unknown correlation structure. *Biometrika*, In press. (ArXiv, website)
2. **Zhang, Z.**, Ding, P., and Zhou, W. (2024+) F Distribution in Linear Regression: A New Lens Through One Century Journey. To be submitted.
3. **Zhang, Z.**, Yang, F., Ding, P., and Zhou, W. (2024+) Mediation analysis with interactions and heredity under growing number of mediators. To be submitted.
4. Lei, L, **Zhang, Z.**, Ding, P., and Zhou, W. (2024+) Robustness of various robust standard errors with respect to different assumptions on the regressors and errors. In progress.

Teaching

Stand-alone Instructor

General Statistics (STAT201) Undergraduate introduction to techniques in descriptive statistics and inference.	SM2020, SM2024
Introduction to Applied Statistics (STAT301) Undergraduate introduction to techniques in descriptive statistics, inference, and regression.	FA2021, SP2022, FA2022, SP2023, FA2023, SP2024, FA2024

Recitation Instructor

General Statistics (STAT201)	FA2019, SP2020, SP2021

Teaching Assistant

Intro to Theory and Practice of Statistics (STAT315) Undergraduate course for probability theory and statistics.	FA2019
Regression Models and Applications (STAA551) Regression analysis for the program of Master of Applied Statistics.	FA2020
Analysis of Time Series (STAA573) Time series analysis for the program of Master of Applied Statistics.	FA2020
Introduction to Probability Theory (STAT520) Graduate course for probability, random variables, distributions, expectations, generating functions, and limit theorems.	FA2021
Probability Theory (STAT720) Graduate course for set theory, measure theory, Lebesgue integral, and conditional expectation.	FA2022, FA2023, FA2024
Advanced Theory of Statistics (STAT730) Graduate course for U-statistics, Hajek projection, moment estimator, maximum-likelihood methods, concentration inequalities, empirical process, and statistical decision theory.	SP2023, SP2024

Presentations

"Mediation analysis with interactions and heredity under growing number of mediators," IRSA, Minneapolis, MN. 5/2024 (Student Poster Competition)

"When least square inference with random regressors encounters unknown correlated errors," WNAR, Fort Collins, CO. 6/2024. (Student Paper Oral Presentation)

Honors and Awards

Gongneng Scholarship	Nankai University, China	2013
Graduate Scholarship for Outstanding Freshmen	Nankai University, China	2016

Professional Membership

Student Membership	Society for Causal Inference

Computing Skills

R, High Performance Computing