Wenxuan Guo

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Education

University of Chicago, Booth School of Business	**Sep. 2021 – Present**
Ph.D. in Econometrics and Statistics	*Chicago, IL*
University of Chicago, Department of Statistics	**Sep. 2019 – Jul. 2021**
M.S. in Statistics	*Chicago, IL*
Fudan University, School of Mathematical Sciences	**Sep. 2015 – Jul. 2019**
B.S. in Mathematical Sciences	*Shanghai, China*

Research Interests

- Experimental design and randomization inference in causal inference.
- Online learning and experimentation.

Work in Progress

- **Wenxuan Guo**, Panos Toulis, Yuhao Wang (2025). Finite-Sample Valid Permutation Inference for Multi-way Clustering and Missing Data, in preparation.

Publications and Preprints

- **Wenxuan Guo**, Tengyuan Liang, Panos Toulis (2025). Gaussianized Design Optimization for Covariate-Balancing in Randomized Experiments, ACM Conference on Economics and Computation (EC'2025), extended abstract. Reject & Resubmission at Journal of the Royal Statistical Society Series B (JRSS-B).
- **Wenxuan Guo**, JungHo Lee, Panos Toulis (2025). ML-assisted Randomization Tests for Complex Treatment Effects in A/B Experiments, under review at Journal of the Royal Statistical Society Series B (JRSS-B).
- **Wenxuan Guo**, Panos Toulis (2024). Invariance-based Inference in High-Dimensional Regression with Finite-Sample Guarantees, under review at Journal of the American Statistical Association (JASA).
- YoonHaeng Hur, **Wenxuan Guo**, Tengyuan Liang (2023). Reversible Gromov-Monge Sampler for Simulation-Based Inference, SIAM Journal on Mathematics of Data Science (SIMODS).
- **Wenxuan Guo**, YoonHaeng Hur, Tengyuan Liang, Christopher Ryan (2022). Online Learning to Transport via the Minimal Selection Principle, Conference on Learning Theory (COLT).

Academic Service

- Reviewers for major ML conferences (Neurips, ICLR) and statistical journals.
- Teaching Assistantship
    - Time-series Analysis for Forecasting and Model Building (2025)
    - Applied Econometrics (2024, 2025)
    - Business Statistics (2024, 2025)
    - Modern Applied Optimization (2023)
    - Multivariate Data Analysis via Matrix Decompositions (2020)

Talks

Gaussianized Design Optimization for Covariate-Balancing in Randomized Experiments

Joint Statistical Meetings (JSM'2025), Nashville, US.	08/2025
ACM Conference on Economics and Computation (EC'2025), Stanford University, US.	07/2025
Econometrics & Statistics PhD Seminar, University of Chicago, Chicago, US.	04/2025

ML-assisted Randomization Tests for Complex Treatment Effects in A/B Experiments

American Causal Inference Conference (ACIC), Detroit, US.	05/2025
Online Causal Inference Seminar (virtual).	12/2024

– Discussant: Professor Xinran Li (University of Chicago)

Invariance-based Inference in High-Dimensional Regression with Finite-Sample Guarantees

Joint Conference on Statistics and Data Science in China (JCSDS), Yunan, China.	07/2024
Econometrics & Statistics PhD Seminar, University of Chicago, Chicago, US.	01/2024