

# WENXUAN GUO

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## Education

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**University of Chicago, Booth School of Business**

*Ph.D. in Econometrics and Statistics*

**Sep. 2021 – Present**

*Chicago, IL*

**University of Chicago, Department of Statistics**

*M.S. in Statistics*

**Sep. 2019 – Jul. 2021**

*Chicago, IL*

**Fudan University, School of Mathematical Sciences**

*B.S. in Mathematical Sciences*

**Sep. 2015 – Jul. 2019**

*Shanghai, China*

## Research Interests

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

## Work in Progress

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

## Publications and Preprints

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- **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. Main paper under review 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](#).
- **Wenxuan Guo**, Panos Toulis (2024). [Invariance-based Inference in High-Dimensional Regression with Finite-Sample Guarantees](#), reject and resubmission 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

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- 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, 2026)
  - Modern Applied Optimization (2023)
  - Multivariate Data Analysis via Matrix Decompositions (2020)

## Talks

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### **Gaussianized Design Optimization for Covariate-Balancing in Randomized Experiments**

Advances with Field Experiments Conference (AFE' 2025), University of Chicago, Chicago, US.	09/2025
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