

Luhao Zhang

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(Updated on 2025 Oct)

POSITIONS	Johns Hopkins University , Baltimore, MD, USA Assistant Professor, Department of Applied Math and Statistics Jan 2025 -
	Columbia University , New York, NY, USA Postdoctoral Research Scientist, Department of IEOR Sep 2023 - Dec 2024
EDUCATION	The University of Texas at Austin , Austin, TX, USA Ph.D. in Mathematics Aug 2018 - Aug 2023
	Xi'an Jiaotong University , Xi'an, Shaanxi, China B.S. in Mathematics and Applied Mathematics (Honors Program) Aug 2014 - June 2018
PUBLICATIONS & PREPRINTS	- Luhao Zhang, Jincheng Yang, Rui Gao. <i>Optimal Robust Policy for Feature-Based Newsvendor</i> (2023), Management Science 70(4):2315-2329. - Luhao Zhang, Jincheng Yang, Rui Gao. <i>A Short and General Duality Proof for Wasserstein Distributionally Robust Optimization</i> (2024), Operations Research 73(4):2146-2155. - Luhao Zhang, Mohsen Ghassemi, Ivan Brugere, Alan Mishler, Niccolo Dalmaso, Vamsi Potluru, Tucker Balch, Manuela Veloso. <i>Conditional Demographic Parity Through Optimal Transport</i> (2022), accepted by NeurIPS Workshop on Algorithmic Fairness through the Lens of Causality and Privacy. - A conference version is accepted by AAAI Conference on Artificial Intelligence 39(16), 16808-16816. - Renyuan Xu, Thaleia Zariphopoulou, Luhao Zhang. <i>Decision Making under Costly Sequential Information Acquisition: the Paradigm of Reversible and Irreversible Decisions</i>, Submitted. - Jincheng Yang, Luhao Zhang, Ningyuan Chen, Rui Gao, Ming Hu. <i>Decision-making with Side Information: A Causal Transport Robust Approach</i>, Operations Research, Major revision. - Tianyu Wang, Luhao Zhang, Rachel Cummings. Integrating Feature Correlation in Differential Privacy with Applications in DP-ERM, Submitted.
PATENTS	<i>Method and system for obtaining conditional demographic parity through optimal transport in data-driven model</i> (2024), U.S. 2024/0303532 A1.

AWARD	Meritorious Service Award, Mathematical Programming	2023
	Student Travel Award, SIAM	May 2023
	Professional Development Award, UT Austin	Spring, Fall 2022
	Graduate Continuing Bruton Fellowship, UT Austin	Spring 2022
	Frank Gerth III Teaching Excellence Award, UT Austin	2021
	Selected to present at the Cornell ORIE Young Researchers Workshop	Summer 2021
	Graduate School Summer Fellowship, UT Austin	Summer 2021
PROFESSIONAL SERVICE	Referee	
	• Mathematical Programming (2023 Meritorious Service Award)	
	• Operations Research	
	• Management Science	
	• Mathematics of Operations Research	
	• Production and Operations Management	
	• 3rd ACM International Conference on AI in Finance	
	• AISTATS 2026	
	Session Chair	
	• Joint Mathemaicas Meeting 2026, AWM Special Session On Recent Trends Of Stochastic Methods In Modern Generative AI	
INVITED TALKS	• 12th General AMaMeF Conference 2025, Invited session of Reinforcement Learning	
	• INFORMS 2024, Invited session of Decision-making under Uncertainty	
	• ICSP 2023, Mini-symposium of Causal transport and adapted Wasserstein distance	
	• INFORMS 2023, Invited session of Decision-making under Uncertainty	
	• INFORMS 2022, Invited session of Data-driven Decision Making	
	• INFORMS 2021, Invited session of Learning and Decision-making with Contextual Information	
	• Workshop on Stochastic Control, Financial Technology, and Machine Learning, HongKong PolyU	December 2025
	• Workshop on Optimal transport: stochastics, projections, and applications, Fields Institute, Toronto	November 2025
	• 2025 SIAM New York-New Jersey-Pennsylvania Section Conference, PSU	October 2025
	• INFORMS Annual Meeting Atlanta, Georgia	October 2025
	• Machine Learning, Data Mining, and Data Assimilation in Geospace (LMAG25), JHU APL, Baltimore	October 2025

- Workshop on Advances in Mathematics of Randomness for Handling Risks in Finance and Insurance, CIRM, Luminy, France September 2025
- Mathematical Congress of the Americas 2025 (MCA 2025), Miami July 2025
- 2025 International Conference on Continuous Optimization (ICCOPT 2025), Los Angeles July 2025
- SIAM Conference on Financial Mathematics and Engineering (FM25), Miami July 2025
- 12th General AMaMeF Conference, Verona, Italy June 2025
- University of Miami, Miami, FL April 2025
- Joint SIAM-BFS Mathematical Finance Online Seminar, Invited Launch Speaker March 2025
- INFORMS Annual Meeting, Seattle, WA October 2024
- Workshop on Mathematical Insights from Markets, Control, and Learning, **Spotlight talk**, Aussois, France September 2024
- INFORMS Conference on Financial Engineering and FinTech, Hong Kong August 2024
- International Symposium on Mathematical Programming (ISMP), Montréal, Canada July 2024
- Bachelier World Congress of the Bachelier Finance Society, Rio de Janeiro, Brazil July 2024
- Actuarial Science and Financial Mathematics seminar series, University of Waterloo, Waterloo, Canada July 2024
- Mathematical Finance Seminar Series, Columbia University, NY March 2024
- INFORMS Optimization Society Conference, Houston, TX March 2024
- Workshop on Decision Making and Uncertainty, IMSI, Chicago, IL February 2024
- INFORMS Annual Meeting, Phoenix, AZ October 2023
- International Conference Stochastic Programming (ICSP), Davis, CA July 2023
- SIAM Conference on Optimization (OP23), Seattle, Washington May 2023
- Western Conference on Mathematical Finance, UC Berkeley, CA March 2023
- INFORMS Annual Meeting, Indianapolis, IN October 2022
- SIAM Annual Meeting, Pittsburgh, PA July 2022
- INFORMS Optimization Society Conference, Greenville, SC March 2022
- Texas Women in Math Symposium, Rice University February 2022
- Conference on Artificial Intelligence, Machine Learning, and Business Analytics, Rutgers University December 2021
- INFORMS Annual Meeting, Anaheim, CA October 2021

- Cornell ORIE Young Researchers Workshop, Ithaca, NY October 2021
- International Conference of the Chinese Scholars Association for Management Science and Engineering (CSAMSE), Shanghai Jiaotong University July 2021
- Robust Optimization Webinar Series May 2021

TEACHING

Instructor

Johns Hopkins University

Spring 2025 - now

- Bayesian Statistics

OUTREACH

Directed Reading Program

- Sonali Singh, on the topic of *Stochastic Calculus for Finance* Spring 2020
- Wenxuan Jiang, on the topic of *Stochastic Calculus for Finance* Fall 2021
- Haoze Yan, on the topic of *Stochastic Programming* Spring, Fall 2022
- Yuxiang Gao, on the topic of *Elements of Statistical Learning* Spring 2022