Luhao Zhang

Contact Information

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Research Area

Quantitative Finance, Stochastic Control, Data-driven Decision Making under Uncertainty

Education

The University of Texas at Austin, Austin, TX, USA

Ph.D. Student in Mathematics — Aug. 2018 - Present
Adviser: Thaleia Zariphopoulou

Xi'an Jiaotong University (XJTU), Xi'an, Shaanxi, China

Special Class for the Gifted Youth Program — Aug. 2012 - 2014
B.S. in Mathematics and Applied Mathematics (Honors Science Program) — Aug. 2014 - 2018

Columbia University in the City of New York, New York City, NY, USA

Visiting Undergraduate Student — Jan. - May 2016

University of California, Berkeley, Berkeley, CA, USA

Visiting Undergraduate Student — Jan. - May 2017

Publications and Preprints

Submitted for Publication

- Rui Gao, Jincheng Yang, **Luhao Zhang**. *Robust Policy Optimization for Feature-Based Newsvendor* (2021)

In Preparation

- Thaleia Zariphopoulou, **Luhao Zhang**. *Optimal investment under partial information with CMIM utility* (2021)
- Rui Gao, Jincheng Yang, **Luhao Zhang**. *Distributionally Robust End-to-end Learning with Contextual Information* (2021)
- Rui Gao, Jincheng Yang, **Luhao Zhang**. *A Simple Duality Proof for Wasserstein Distributionally Robust Optimization* (2021)

Award

Frank Gerth III Teaching Excellence Award, UT Austin — 2021

Programming

Experience in Python, C++, R, Matlab, Mathematica

Invited Talks

- Robust Optimization Webinar Series, on the topic of *Robust Policy Optimization for Feature-Based Newsvendor* — May 20, 2021
- The 13th International Conference of the Chinese Scholars Association for Management Science and Engineering (CSAMSE), Shanghai Jiaotong University, on the topic of *Robust Policy Optimization for Feature-Based Newsvendor* — July 31, 2021

Conferences & Workshops Attended

- Decision Making in Health and Medical Care, IMSI — May 17-21, 2021
- SIAM Conference on Financial Mathematics and Engineering (FM21) — June 1-4, 2021
- SIAM Conference on Control and Its Applications (CT21) — July 19-21, 2021
- SIAM Annual Meeting (AN21) — July 19-23, 2021
- SIAM Conference on Optimization (OP21) — July 20-23, 2021

Teaching experience

Applied Mathematics and Statistics

- M358K *Applied Statistics* — Fall, 2021
- M362K *Probability* — Fall, 2020
- M348 *Scientific Computation in Numerical Analysis* — Spring and Fall, 2019

Pure Mathematics

- M408K *Differential Calculus* — Spring, 2021
- M F325K *Discrete Mathematics* — Summer, 2020
- M427L *Advanced Calculus for Applications II* — Spring, 2020
- M408D *Sequences, Series, and Multivariable Calculus* — Fall, 2018

Outreach

Directed Reading Program Mentor

- Sonali Singh, on the topic of *Stochastic Calculus for Finance* — Spring, 2020

Research Topics

- Robust portfolio selection
- Markets with frictions
- Partial information
- Rational inattention
- Nonlinear filtering
- Information costs