JIAMENG LYU

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EDUCATION

Tsinghua University, Beijing, China

Aug. 2021 – Jun. 2025 (Expected)

Ph.D. Candidate in **Operations Research** Department of Mathematics Advisor: Prof. Yuan Zhou

University of Science and Tchenology of China (USTC), Hefei, China Aug. 2017 – Jul. 2021

B.S. in Statistics (Honor Degree)

Rank: 2 / 40 **Guo Moruo Schlorship** (the highest honor for undergraduates in USTC)

RESEARCH INTERESTS

Data-driven Decision-Making in Operations Management including online learning, online optimization, statistical machine learning, and their applications to **inventory management** and **revenue management**.

RESEARCH WORKS

Publications (* refers to alphabetical order and ** refers to equal contribution)

- [1] Xi Chen*, **Jiameng Lyu***, Yining Wang*, Yuan Zhou*. Network Revenue Management with Demand Learning and Fair Resource-Consumption Balancing. *Production and Operations Management*, 33(2), 494-511, 2024.
- [2] Qi Qi**, **Jiameng Lyu****, Kung-Sik Chan, Er-Wei Bai, Tianbao Yang. Stochastic Constrained DRO with a Complexity Independent of Sample Size. *Transactions on Machine Learning Research*, 2023.

Papers Under Revision or Review

- [3] **Jiameng Lyu***, Jinxing Xie*, Shilin Yuan*, Yuan Zhou*. A Minibatch-SGD-Based Learning Meta-Policy for Inventory Systems with Myopic Optimal Policy. Under minor revision at *Management Science*.
- [4] Xi Chen*, **Jiameng Lyu***, Xuan Zhang*, Yuan Zhou*. Fairness-aware Online Price Discrimination with Nonparametric Demand Models. Under major revision at *Operations Research*.
- [5] Xin Chen*, **Jiameng Lyu***, Shilin Yuan*, Yuan Zhou*. Learning in Lost-Sales Inventory Systems with Stochastic Lead Times and Random Supplies. Under major revision at *Management Science*.
- [6] Shilin Yuan, **Jiameng Lyu**, Jinxing Xie, Yuan Zhou. Asymptotic Optimality of Base-Stock Policies for Lost-Sales Inventory Systems with Stochastic Lead Times. Submitted.
- [7] **Jiameng Lyu***, Shilin Yuan*, Bingkun Zhou*, Yuan Zhou*. Closing the Gaps: Optimality of Sample Average Approximation for Data-Driven Newsvendor Problems. Submitted.

Works in Progress

[8] Xin Chen*, **Jiameng Lyu***, Shilin Yuan*, Yuan Zhou*. Nonstationary Sample Average Approximation with Applications in Inventory Management.

TEACHING EXPERIENCES

At Tsinghua University:

• Co-Instructor: Probability Tutorial Course for Yau College Student Mathematics Contest	Spring 2022
• Teaching Assistant: Mathematical Modelling (00420033)	Spring 2024
• Teaching Assistant: Advanced Numerical Analysis (60420024)	Fall 2023
• Teaching Assistant: Machine Learning Theory (84760144)	Spring 2023
• Teaching Assistant: Mathematical Foundations of Machine Learning (44760153)	Spring 2022
• Teaching Assistant: Linear Algebra (10421324)	Fall 2021

At University of Science and Technology of China:

• Teaching Assistant: Mathematical Analysis B2 (MATH1007)

Spring 2021

Teaching Assistant: Mathematical Analysis B1 (MATH1006)
Teaching Assistant: Linear Algebra (001519)
Spring 2020

SELECTED AWARDS

• National Scholarship (Top 1%)	Oct. 2023
• Yau Mathematical Sciences Center Outstanding Graduate Scholarship, First Prize (Top 5%)	Sept. 2023
• Honorary Rank in USTC (Top 5%)	Jun. 2021
• Outstanding Graduate in USTC (Top 10%)	Jun. 2021
• Outstanding Undergraduate Thesis Award in USTC (Top 5%)	Jun. 2021
• Guo Moruo Scholarship (Top 1%)	Apr. 2021

PROFESSIONAL SERVICES

• Reviewer for:

- Operations Research
- Operations Research Letters
- International Conference of Machine Learning (ICML 2022)
- International Computing and Combinatorics Conference (COCOON 2022)
- Session Chair for: POMS-HK International Conference (2024)

INVITED TALKS

- "A Minibatch-SGD-Based Learning Meta-Policy for Inventory Systems with Myopic Optimal Policy"
 - Tsinghua University, Prof. Yong Liang's Group in School of Economics and Management, Apr. 2024
- "Learning in Lost-Sales Inventory Systems with Stochastic Lead Times and Random Supplies" *POMS-HK International Conference* (2024) Jan. 2024
- "Network Revenue Management with Demand Learning and Fair Resource-Consumption Balancing" *POMS-HK International Conference* (2024) Jan. 2024