# Jiameng Lyu

✉ lvjm21@mails.tsinghua.edu.cn · 🔗 https://jiamenglyu.github.io

## Education

**Tsinghua University**, Beijing, China                                     Aug. 2021 – Jun. 2025 (Expected)
Ph.D. Candidate in Applied 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

My research interests center around **data-driven sequential decision-making** including online learning, online optimization, and statistical machine learning, with an emphasis on applications to **inventory and revenue management**.

## Publications and Preprints

**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. Accept to *Production and Operations Management*.

[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.

**Paper 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 major 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. Submitted.

[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.

## Teaching Experiences

**At Tsinghua University:**

- Co-Instructor: Probability Tutorial Course for Yau College Student Mathematics Contest     Spring 2022
- 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)                                  Fall 2020
- 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*
  - *International Conference of Machine Learning (ICML 2022)*
  - *International Computing and Combinatorics Conference (COCOON 2022)*
- **Session Chair for:** *POMS-HK International Conference (2024)*

## INVITED TALKS

- "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