Shilin Yuan

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Education

Tsinghua University, Beijing, China   Aug.2021 –Present
Ph.D. Candidate in Applied Mathematics   **Advisor:** Prof. Jinxing Xie

Huazhong University of Science and Technology, Wuhan, China   Aug.2017 –July 2021
B.S. in Mathematics and Applied Mathematics

Research Interests

Methodology: Online Learning and Optimization, Asymptotic Analysis.
Application: Operations Management, especially Inventory Management and Revenue Management.

Working Papers

[1] (Alphabetic) 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*. [SSRN]

[2] (Alphabetic) 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*. [SSRN]

[3] **Shilin Yuan**, Jiameng Lyu, Jinxing Xie, Yuan Zhou. Asymptotic Optimality of Base-Stock Policies for Lost-Sales Inventory Systems with Stochastic Lead Times. Submitted.

[4] (Alphabetic) Jiameng Lyu, **Shilin Yuan**, Bingkun Zhou, Yuan Zhou. Closing the Gaps: Optimality of Sample Average Approximation for Data-Driven Newsvendor Problems. Submitted. [SSRN] [arXiv]

Work in Process

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

[2] **Shilin Yuan**, Jinxing Xie, Xiaobo Zhao, Xiuli Chao. Asymptotic Optimality of (s, S) Policies for Perishable Inventory Systems with Fixed Ordering Costs.

Professional Services

- **Reviewer:** *Operations Research*
- **Session chair:** 14th POMS-HK International Conference

Honors and Awards

- Excellent Undergraduate (Top **1%**)   September 2018
- Honored Bachelor's Degree (Top **1%**)   June 2021
- Outstanding Graduate   June 2021

Teaching Experiences

Tsinghua University:

- Teaching Assistant: Introduction to Mathematical Modelling (00420152)   Autumn 2021
- Teaching Assistant: Mathematical Experiments (10420854)   Spring 2022
- Teaching Assistant: Introduction to Mathematical Modelling (00420152)   Autumn 2022
- Teaching Assistant: Mathematical Models (00420033)   Spring 2023
- Teaching Assistant: Mathematical Programming II (70420624)   Autumn 2023
- Teaching Assistant: Modern Optimization Methods (60420174)   Spring 2024

Talks

- A Minibatch-SGD-Based Learning Meta-Policy for Inventory Systems with Myopic Optimal Policy.
    - 14th POMS-HK International Conference   2024

Miscellaneous

- **Programming Skill:** MATLAB, Python