

# SHILIN YUAN

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## EDUCATION

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**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

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**Methodology:** Online Learning and Optimization, Asymptotic Analysis.

**Application:** Operations Management, especially Inventory Management and Revenue Management.

## WORKING PAPERS

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- [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 minor 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

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- [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

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- **Reviewer:** *Operations Research*
- **Session chair:** 14th POMS-HK International Conference, CSAMSE 2024

## HONORS AND AWARDS

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

## TEACHING EXPERIENCES

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### 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

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- A Minibatch-SGD-Based Learning Meta-Policy for Inventory Systems with Myopic Optimal Policy.
  - 14th POMS-HK International Conference 2024
- Closing the Gaps: Optimality of Sample Average Approximation for Data-Driven Newsvendor Problems.
  - CSAMSE 2024 2024

## MISCELLANEOUS

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- **Programming Skill:** MATLAB, Python