

Zhe Liu

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ACADEMIC APPOINTMENT	Imperial College London, Imperial Business School <i>Department of Analytics, Marketing & Operations</i> Assistant Professor of Operations Management	London, UK 2019–
EDUCATION	Columbia University, Graduate School of Business Ph.D., Operations Management Advisors: Awi Federgruen, Costis Maglaras Tsinghua University B.S., Industrial Engineering	New York, NY 2013–2019 Beijing, China 2009–2013
RESEARCH INTERESTS	Revenue management: operations and design of platforms, assortment optimization Supply chain management: multi-sourcing, inventory management	
JOURNAL PUBLICATIONS	[1] Sourcing with Demand Updates, <i>Management Science</i>, forthcoming. (with Awi Federgruen and Jiaqi Lu) • MSOM Supply Chain Management SIG Invited Talk, 2023 [2] Dual Sourcing under Internal and External Volatilities, <i>Manufacturing & Service Operations Management</i>, 27(3):975-992, 2025. (with Awi Federgruen and Jiaqi Lu) • MSOM Supply Chain Management SIG Invited Talk, 2021 [3] Ride-Hailing Networks with Strategic Drivers: The Impact of Platform Control Capabilities on Performance, <i>Manufacturing & Service Operations Management</i>, 25(5):1890-1908, 2023 (with Philipp Afèche and Costis Maglaras) • MSOM Service SIG Invited Talk, 2018 [4] Combined Pricing and Inventory Control with Multiple Unreliable Suppliers, <i>Operations Research Letters</i>, 51(1):60-66, 2023 (with Awi Federgruen and Jiaqi Lu) [5] Dual Sourcing: Creating and Utilizing Flexible Capacities with a Second Supply Source, <i>Production and Operations Management</i>, 31(7):2789-2805, 2022 (with Awi Federgruen and Lijian Lu) • 2nd Place, POMS College of SCM Student Paper Competition, 2018 • 2nd Place, POMS-HK Best Student Paper Competition, 2019 [6] Synthesis and Generalization of Structural Results in Inventory Management: A Generalized Convexity Property, <i>Mathematics of Operations Research</i>, 45(2):547-575, 2020 (with Awi Federgruen and Lijian Lu) • Finalist, George Nicholson Student Paper Competition, 2018 • MSOM Supply Chain Management SIG Invited Talk, 2018	
WORKING PAPERS	[7] Operating Three-sided Marketplace: Pricing and Spatial Staffing in Food Delivery Systems, <i>Management Science</i>, major revision. (with Yiwen Shen and Yanwei Sun) • 1st Place, INFORMS Service Science Best Cluster Paper Award, 2024 • 2nd Place, CSAMSE Best Paper Award, 2024 [8] Information Design and Pricing in Lead-Selling Platforms with Supply Competition, <i>Management Science</i>, major revision. (with Yanwei Sun, Niloofar Zamani-Froushani and Jiahua Wu)	

	• Proceedings of the 25th ACM Conference on Economics and Computation, EC'24	
	[9] Assortment Optimization and Pricing in a Queue, Management Science , reject & resubmit. (with Kalyan Talluri and Shixin Wang)	
	[10] On-Off Systems with Strategic Customers, Operations Research , reject & resubmit. (with Yanwei Sun and Chiwei Yan)	
	[11] Surge Pricing and Dynamic Matching for Hotspot Demand Shock in Ride-Hailing Networks. (with Philipp Afèche and Costis Maglaras)	
	[12] Trip Radar: a Controlled Decentralized System to Enhance Matchmaking in Ride-Hailing. (with Hongfan Chen, Anran Li and Quan Zhou)	
	[13] Robust Weakly Coupled Markov Decision Processes. (with Fupeng Sun, Huikang Liu and Wolfram Wiesemann)	
WORK IN PROGRESS	[14] The Price of Prestige: Exclusive Pricing and Selling of Luxury Bands and Resale Market Dynamics. (with Anran Li and Rachel Q. Zhang)	
	[15] Information Design in Research Funding. (with Anran Li, Wenqi Lian and Mengyang Lin)	
	[16] Inventory Control and Markdown Pricing of Perishable Products with Waste Constraints. (with Gah-Yi Ban and Molly Wang)	
OTHER WORKS	Inventory Strategies for Service-Sensitive Demands, <i>Undergraduate Thesis</i> , 2013. (Advisor: Zuo-Jun Max Shen)	
	Service Parts Demand Forecasting and Multi-Echelon Inventory Network Design, <i>Research Report for Caterpillar Logistics</i> , 2013. (with K. Wang, W. Zhu and X. Zhao)	
	Multistage Stochastic Mixed-Integer Programs for Optimizing Gas Contract and Maintenance Scheduling, <i>Permanent working paper</i> , 2012. (with Siqian Shen)	
	Intermittent Demand Forecasting of Slow Moving Parts, <i>Tsinghua University Student Journal</i> , 4(2): 34-49, 2012. (with Jialing Tao and Yi Yang)	
CASES	ILUMÉXICO: A Built-for-Assembly Supply Chain Strategy, <i>Columbia CaseWorks</i> , ID: 170203, 2017. (with Awi Federgruen and Abigail Talcott-Schlaifer)	
INDUSTRY	Research Scientist Intern , Amazon, Seattle	June–Aug. 2018
TEACHING	Imperial Business School , London, UK	
	• Big Data, AI and Machine Learning (MBA elective) • Decision Analytics (MBA core) • Optimization (PhD core) • Maths and Statistics Foundations for Analytics (MSBA core)	2020–2025 2021–2022 2020, 2022–2025 2019–2025
	London Business School , London, UK	
	• Demand and Revenue Management (PhD elective) • Advanced Optimization (PhD elective)	2020, 2022, 2024 2023
	Columbia Business School , New York, NY	
	• MBA Excel Workshop—Advanced Level • Intro to Spreadsheet Optimization and Simulation (MSE master)	2015–2017 2016–2017

HONORS AND
AWARDS

- 1st Place, INFORMS Service Science Best Cluster Paper Award, 2024
- 2nd Place, CSAMSE Best Paper Award, 2024
- MSOM Supply Chain Management SIG Invited Talk, 2023
- Management Science Meritorious Service Award, 2022
- MSOM Meritorious Service Award, 2022
- MSOM Supply Chain Management SIG Invited Talk, 2021
- 2nd Place, POMS-HK Best Student Paper Competition, 2019
- Finalist, George Nicholson Student Paper Competition, 2018
- 2nd Place, POMS College of SCM Student Paper Competition, 2018
- Doctoral Fellow Presentation at Deming Cup Award Ceremony, 2018
- Chazen Institute for Global Business Research Award, 2018
- MSOM Service SIG Invited Talk (8/66 submissions), 2018
- MSOM Supply Chain Management SIG Invited Talk (8/43 submissions), 2018
- Deming Doctoral Research Fellowship, 2016
- Deming Doctoral Research Fellowship, 2015
- Doctoral Fellowship, Columbia Business School, 2013–2018
- Tsinghua University Outstanding Undergraduate Student Award, 2013.
- Beijing Outstanding Undergraduate Student Award, 2013.
- President Jiang Nan-Xiang Scholarship, Tsinghua University, 2012.
- 1st Place, 30th Tsinghua Challenge Cup Research and Innovation Contest, 2012.
- Changhong Scholarship, Tsinghua University, 2011.
- Outstanding Prize (Top 4/8000) in 27th National College Physics Contest, 2011.
- OOCL Scholarship, Tsinghua University, 2010.

SERVICES

- PhD Director of the Analytics & Operations area, Imperial Business School, 2023–
- Secretary/Treasurer, INFORMS RMP Section, 2025–2026
- Guest Associate Editor for *Naval Research Logistics*
- Journal referee for *Management Science*, *Manufacturing & Service Operations Management*, *Operations Research*, *Operations Research Letters*, *Production & Operations Management*, *Transportation Science*, *Transportation Research Part B*
- External reviewer for the Research Grants Council (RGC) of Hong Kong
- Committee Member
 - INFORMS RMP Jeff McGill Student Paper Award, 2024–2025
 - 2026 INFORMS TSL Conference
- Judge
 - POMS-HK Best Student Paper Competition, 2023–2024
 - MSOM Student Paper Competition, 2024–2025
 - CSAMSE Best Paper Competition, 2024
 - POMS College of Service Operations Management Best Student Paper Competition, 2025
- Reviewer
 - MSOM Service SIG Conference, 2022, 2024
 - MSOM Supply Chain Management SIG Conference, 2020–2022, 2025
- Organizer of the 2023 INFORMS RMP Annual Conference, Imperial College Business School
- Session chair at INFORMS Annual Meeting, 2021–

STUDENT
SUPERVISION

Current PhD students

- Niloofar Zamani-Foroushani (jointly with Prof. Jiahua Wu) – Expected: 2026
- Fupeng Sun (jointly with Prof. Wolfram Wiesemann) – Expected: 2028
- Molly Wang (jointly with Prof. Gah-Yi Ban) – Expected: 2029

Former PhD students

- Yanwei Sun (jointly with Prof. Jiahua Wu): 2022–2025 (supervision concluded)

INVITED SEMINARS	• Cornell University, Cornell SC Johnson College of Business	2025
	• University of Macau, Faculty of Business Administration	2025
	• IESE Business School	2025
	• Xi'an Jiaotong University, School of Management	2025
	• Durham University, Business School	2024
	• Control and Optimization Seminar, Imperial College London	2024
	• Hong Kong University of Science and Technology, Department of IEDA	2023
	• Chinese University of Hong Kong, Shenzhen, School of Data Science	2023
	• Hong Kong Polytechnic University	2022
	• Rotman Young Scholar Seminar Series, University of Toronto	2022
	• Chinese University of Hong Kong, CUHK Business School	2022
	• Shanghai Jiao Tong University, Antai College of Economics and Management	2021
	• University of Science and Technology of China, School of Management	2021
	• Tianjin University, College of Management and Economics	2021
	• Fudan University, School of Management	2020
	• University College London, School of Management	2019
	• Imperial College London, Imperial College Business School	2019
	• University of Toronto, Rotman School of Management	2019
	• University of Miami, Miami Business School	2019
	• Indiana University, Kelley School of Business	2019
	• University of Hong Kong, Faculty of Business and Economics	2019
	• City University of Hong Kong, College of Business	2019
	• Hong Kong University of Science and Technology, HKUST Business School	2019
	• Northwestern University, Kellogg School of Management	2018
CONFERENCE TALKS	• INFORMS Annual Meeting, Atlanta, GA	Oct. 2025
	• INFORMS RMP Section Conference, Columbia University	July 2025
	• MSOM Annual Conference, London Business School, London	June 2025
	• INFORMS Annual Meeting, Seattle, WA	Oct. 2024
	• INFORMS RMP Section Conference, UCLA	July 2024
	• MSOM Annual Conference, Minneapolis, MN (2 talks)	July 2024
	• INFORMS Annual Meeting, Phoenix, AZ	Oct. 2023
	• Marketplace Innovation Workshop (virtual)	May 2023
	• INFORMS RMP Section Conference (virtual), Chicago Booth	June 2022
	• Marketplace Innovation Workshop (virtual)	May 2022
	• INFORMS Annual Meeting (virtual), Anaheim, CA	Oct. 2021
	• CSAMSE Annual Conference, Shanghai, China	July 2021
	• INFORMS RMP Section Conference (virtual), Johns Hopkins University	June 2021
	• MSOM Annual Conference (virtual), Indiana University	June 2021
	• INFORMS Annual Meeting (virtual) (2 talks)	Nov. 2020
	• INFORMS Annual Meeting, Seattle, WA (3 talks)	Oct. 2019
	• 5th Annual Fashion Operations and Retailing Conference, London, UK	Oct. 2019
	• MSOM Annual Conference, Singapore	July 2019
	• INFORMS RMP Section Conference, Stanford, CA	June 2019
	• POMS-HK Int'l Conference (Student Paper Competition), Hong Kong	Jan. 2019
	• INFORMS Annual Meeting, Phoenix, AZ (3 talks; George Nicholson Student Paper Competition)	Nov. 2018
	• MSOM Service SIG Meeting, Dallas, TX	July 2018
	• MSOM Supply Chain Management SIG Meeting, Dallas, TX	July 2018
	• MSOM Annual Conference, Dallas, TX (2 talks)	July 2018
	• INFORMS RMP Section Conference, Toronto, Canada	June 2018

- POMS Annual Conference (Student Paper Competition), Houston, TX May 2018
- INFORMS Annual Meeting, Houston, TX (2 talks) Oct. 2017
- Amazon Supply Chain Optimization Summit (Poster), Seattle, WA Oct. 2017
- CSAMSE Annual Conference, Guangzhou, China July 2017
- MSOM Annual Conference, Chapel Hill, NC June 2017
- Marketplace Innovation Workshop, Stanford, CA June 2017
- Deming Doctoral Fellow Seminar, New York, NY April 2017
- INFORMS Annual Meeting, Nashville, TN (3 talks) Nov. 2016
- MSOM Annual Conference, Auckland, New Zealand (2 talks) July 2016
- INFORMS RMP Section Conference, New York, NY June 2016
- Trans-Atlantic Doctoral Conference, London, UK May 2016
- Deming Doctoral Fellow Seminar, New York, NY April 2016

Last updated on October 30, 2025