

Shining Wu

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EDUCATION

- 2014 **The Hong Kong University of Science and Technology**, Hong Kong
Ph.D. in Industrial Engineering and Logistics Management
- 2009 **Peking University**, Beijing, China
B.S. in Statistics

ACADEMIC EXPERIENCE

- Department of Logistics and Maritime Studies, The Hong Kong Polytechnic University,**
Hong Kong
Assistant Professor Sep. 2015 – present
- Department of Industrial Engineering and Logistics Management, The Hong Kong University of Science and Technology,** Hong Kong
Postdoctoral Fellow Sep. 2014 – Sep. 2015

RESEARCH INTERESTS

Sharing economy, queueing theory and its applications, data-driven optimization, strategic consumer behavior, inventory control

PUBLICATIONS

- [1] Wu, S., Q. Liu, and R. Q. Zhang (2015). The reference effects on a retailer's dynamic pricing and inventory strategies with strategic consumers. *Operations Research* 63(6), 1320–1335
- [2] Wu, S., J. Zhang, and R. Q. Zhang (2018). Management of a shared-spectrum network in wireless communications. *Operations Research* 66(4), 1119–1135
- [3] Benjaafar, S., S. Wu, H. Liu, and E. Gunnarsson (2021). Dimensioning on-demand vehicle sharing systems. *Management Science*. Published online in *Articles in Advance*
- [4] Wang, W., S. Wu, S. Wang, L. Zhen, and X. Qu (2021). Emergency facility location problems in logistics: Status and perspectives. *Transportation Research Part E: Logistics and Transportation Review* 154, 102465
- [5] Yi, W., S. Wu, L. Zhen, and G. Chawynski (2021). Bi-level programming subsidy design for promoting sustainable prefabricated product logistics. *Cleaner Logistics and Supply Chain* 1, 100005
- [6] Chen, X., R. Yan, S. Wu, Z. Liu, H. Mo, and S. Wang (2021). A fleet deployment model to minimize the covering time of maritime rescue missions. *Accepted for Publication in Maritime Policy & Management*

WORKING PAPERS

- [1] Optimizing Queues When Customers Commit the Sunk Cost Fallacy (with Liutao Yang), *under review*
- [2] New Product Introduction in New Retail: Vertical Differentiation (with Chia-Wei Kuo, Hui Xiong, Ying-Ju Chen, and Ting-Kai Chang)
- [3] Efficient and Explainable Ship Selection Planning in Port State Control (with Ran Yan, Yong Jin, Jiannong Cao, and Shuaian Wang), *under review*
- [4] Revisiting the Pricing Benchmarks for Asian LNG – An Equilibrium Analysis (with Lingge Zhang, Dong Yang, and Meifeng Luo), *under review*
- [5] Two-sided Competition Between On-demand Service Platforms (with Shihong Xiao and Saif Benjaafar), Available at SSRN: <https://ssrn.com/abstract=3525971>,
- [6] Capacity Provisioning of Queueing Systems with Impatient Customers: A Data-driven Approach
- [7] Operating Vehicle Sharing Systems: One-way or Roundtrip? (with Saif Benjaafar and Hanlin Liu)

PRESENTATIONS

- [1] “Dimensioning On-demand Vehicle Sharing Systems” at Frontiers in Operations Management Workshop 2021, Hong Kong University of Science and Technology, Dec. 2021.
- [2] “Dimensioning On-demand Vehicle Sharing Systems” at The 13th International Conference of the Chinese Scholars Association for Management Science and Engineering, Online, Jul. 2021.
- [3] “Dimensioning On-demand Vehicle Sharing Systems” at the 2020 INFORMS Annual Meeting, Virtual, Nov. 2020.
- [4] “Dimensioning On-demand Vehicle Sharing Systems: Theory and Insights” at The Hong Kong Polytechnic University, Hong Kong, Apr. 2020.
- [5] “Two-sided Competition Between On-demand Service Platforms” at the 2019 INFORMS Annual Meeting, Seattle, USA, Oct. 2019.
- [6] “A Learning Algorithm for Capacity Provisioning of Queueing Systems with Impatient Customers” at Mostly OM 2019 Workshop, Shenzhen, China, Jun. 2019.
- [7] “A Learning Algorithm for Capacity Provisioning of Queueing Systems with Impatient Customers” at POMS 2019 - Thirtieth Annual Conference, Washington, District of Columbia, USA, May 2019.
- [8] “Alleviating Spectrum Scarcity by Sharing – A Queueing Perspective” at INFORMS 2018 International Conference, Taipei, Taiwan, Jun. 2018.
- [9] “Management of a Shared Spectrum Network in Wireless Communications – A Queueing Approach” at the 2017 INFORMS Annual Meeting, Houston, USA, Oct. 2017.

- [10] “Management of a Shared Spectrum Network in Wireless Communications - A Queueing Approach” at INFORMS Applied Probability Society Conference 2017 (APS), Evanston, IL, USA, Jul. 2017.
- [11] “The Reference Effects on a Retailer’s Dynamic Pricing and Inventory Strategies with Strategic Consumers” at INFORMS 2016 International Conference, Hawaii, USA, Jun. 2016.
- [12] “The Reference Effects on a Retailer’s Dynamic Pricing and Inventory Strategies with Strategic Consumers” at The Fifth POMS-HK International Conference, Hong Kong, Jan. 2014.

RESEARCH GRANTS

- Research Grants Council Grant No. 15508021, 2022–2024, “Operating On-Demand Vehicle Sharing Systems: Opportunities and Challenges”, HK\$724,393, PI
- Contract Research, Hong Kong Marine Department, 2021–2022, “Assessment of Typhoon Shelter Space Requirement”, HK\$1,159,250, Modelling Specialist
- Research Grants Council Grant No. 15507919, 2020–2022, “Data-Driven Pricing Strategies in the Presence of Reference”, HK\$381,000, PI
- Research Grants Council Grant No. 25504517, 2018–2020, “A Data-Driven Approach for the Capacity Provisioning of Queueing Systems with Incomplete System Information”, HK\$580,000, PI
- National Natural Science Foundation of China No. 71602142, 2017–2019, “Optimal Government Supporting Policy Design to Promote New Energy Vehicles: based on Tripartite Game Among Firm, Consumers and Government”, ¥170,000, Co-Investigator (PI: Guangrui Ma)
- National Natural Science Foundation of China No. 71301032, 2014–2016, “The Impact and Preventive Strategies of Deceptive Counterfeits in a Supply Chain with Multiple Channels”, ¥205,000, Co-Investigator (PI: Jie Zhang)

SERVICE

- Member: Department Research Committee, Dept. of LMS, PolyU, Sep. 2018 – present
- Elected Member: Board of Faculty of Business, PolyU, Sep. 2017 – Aug. 2021
- Organizing Committee Member: The POMS-HK International Conference, Hong Kong, January, 2017, 2018, 2020
- Organizing Co-Chair: Contributed Sessions for INFORMS International Conference, Hawaii, June 2016
- Reviewer for journals: Management Science, Operations Research, Manufacturing & Service Operations Management, Production and Operations Management, Naval Research Logistics, European Journal of Operational Research, Decision Sciences, Probability in the Engineering and Informational Sciences, etc

AWARDS AND HONORS

- Honorable Mention, Best Student Paper Competition at The Fifth POMS-HK International Conference, January 2014
- IIE (HK) Scholarship, Institute of Industrial Engineers (Hong Kong), 2011 – 2012

COURSES TAUGHT

- LGT2106: Principles of Operations Management
- LGT5105: Managing Operations Systems