

Pengfei Guo

Department of Logistics and Maritime Studies
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EDUCATION

- Ph.D., Duke University, Durham, NC, U.S.A, 2007
Thesis: Analysis and comparison of queues with different levels of delay information.
Advisor: Paul Zipkin
- M.S. in Shanghai Jiao Tong University and B.S. in Xi'an Jiao Tong University

EMPLOYMENT

Faculty of Business, the Hong Kong Polytechnic University

Professor, Department of Logistics and Maritime Studies, 2017-

Associate Professor (with tenure), Department of Logistics and Maritime Studies, 2013-2016

Assistant Professor, Department of Logistics and Maritime Studies, 2007-2013

RESEARCH INTERESTS

Service operations management, Queueing economics, Operations management in public sector including health care, Sharing economy

RESEARCH

Journal Publications

- P1. Wang, Y., B. Niu, P. Guo and J. Song. 2019. Direct sourcing or agent sourcing? contract negotiation in procurement outsourcing. *Manufacturing & Service Operations Management*, accepted.
- P2. Guo, P., F. Liu and Y. Wang. 2019. Pre-positioning and deployment of reserved inventories in a supply network: structural properties. *Production and Operations Management*, <https://doi.org/10.1111/poms.13142>.
- P3. F. Huang, P. Guo and Y. Wang. 2019. Cyclic pricing when customers queue with rating information. *Production and Operations Management*, 28, 2471-2485.
- P4. Guo, P., C. Tang, Y. Wang and M. Zhao. 2019. The impact of reimbursement policy on social welfare, revisit rate and waiting time in a public healthcare system: fee-for-service vs. bundled payment. *Manufacturing & Service Operations Management*, 21(1):154-170.
- P5. Tang, Y., P. Guo and Y. Wang. 2018. Equilibrium queueing strategies of two types of customers in a two-server queue. *Operations Research Letters*, 46 (2018) 99-102.
- P6. Yang, L., P. Guo and Y. Wang. 2018. Service pricing with loss-averse customers. *Operations Research*, 66(3) 761-777.
- P7. Li, R., P. Guo and Z. Lian. 2017. Pricing and capacity decisions of service systems with boundedly rational customers. *Naval Research Logistics*, 64 437-452.
- P8. R. Li, Q. Li, P. Guo and Z. Lian. 2017. On the uniqueness and stability of equilibrium in quality-speed competition with boundedly-rational customers: the case with general

- reward function and multiple servers. *International Journal of Production Economics*, 193 (2017) 726-736.
- P9. Qian, A., P. Guo and R. Lindsey. 2017. Comparison of subsidy schemes for reducing waiting times in health care systems. *Production and Operations Management*, 26(11) 2033-2049.
- P10. Li, R., P. Guo and Z. Lian. 2016. Quality-speed competition in customer-intensive services with boundedly rational customers. *Production and Operations Management*, 25 (11) 1885-1901.
- P11. Li, Q., P. Guo, C-L. Li and J. Song. 2016. Equilibrium joining strategy and optimal control of a make-to-stock queue. *Production and Operations Management*, 25 (9) 1513-1527.
- P12. Xu, X., R. Li, Z. Lian and P. Guo. 2016. A hotelling queue model with probabilistic service. *Operations Research Letters*, 44, 592-597.
- P13. Bensoussan, A., and P. Guo. 2015. Managing nonperishable inventories with learning about demand arrival rate through stock-out times. *Operations Research*, 63, 602-609.
- P14. Niu, B., Y. Wang, P. Guo. 2015. Equilibrium pricing sequence in a co-opetitive supply chain with the ODM as a downstream rival of its OEM. *Omega*, 57, 249-270.
- P15. Guo, P. and R. Hassin. 2015. Equilibrium strategies for placing duplicate orders in a single server queue. *Operations Research Letters*, 43, 343-348.
- P16. Guo, P., R. Lindsey and G. Zhang. 2014. On the Downs-Thomson paradox in a self-financing two-tier queuing system. *Manufacturing & Service Operations Management*, 16, 315-322.
- P17. Wang, Y., B. Niu and P. Guo. 2014. The comparison of two vertical outsourcing structures under push and pull contracts. *Production and Operations Management*, 23, 610-625.
- P18. Guo, P., M. Leng and Y. Wang. 2013. A fair staff allocation rule for the capacity pooling of multiple call centers. *Operations Research Letters*, 41, 490-493.
- P19. Guo, P. and G. Zhang. 2013. Strategic queueing behavior and its impact on system performance in service systems with the congestion-based staffing policy. *Manufacturing & Service Operations Management*, 15, 118-134.
- P20. Wang, Y., B. Niu and P. Guo. 2013. On the advantage of quantity leadership when outsourcing production to a competitive contract manufacturer. *Production and Operations Management*, 22, 104-119.
- P21. Guo, P. and R. Hassin. 2013. On the advantage of leadership in service pricing competition. *Operations Research Letter*, 41, 397-402.
- P22. Guo, P. and Q. Li. 2013. Strategic behavior and social optimization in partially-observable Markovian vacation queues. *Operations Research Letters*, 41, 277-284.
- P23. Guo, P. and R. Hassin. 2012. Strategic behavior and social optimization in Markovian vacation queues: The case of heterogeneous customers. *European Journal of Operational Research*, 222, 278-286.
- P24. Guo, P. and R. Hassin. 2011. Strategic behavior and social optimization in Markovian vacation queues. *Operations Research*, 59, 986-997.
- P25. Guo, P., W. Sun and Y. Wang. 2011. Equilibrium and optimal strategies to join a queue with partial information on service times. *European Journal of Operational Research*, 214, 284-297.

- P26. Guo, P., Z. Lian and Y. Wang. 2011. Pricing perishable products with compound Poisson demands. *Probability in the Engineering and Informational Sciences*, 25, 289-306.
- P27. Guo, P., J. Song and Y. Wang. 2010. Outsourcing structure and information flow in a three-tier supply chain. *International Journal of Production Economics*, 128, 175-187.
- P28. Guo, P., J. Liu, Y. Wang. 2009. Intertemporal service pricing with strategic customers. *Operations Research Letters*, 37, 420-424.
- P29. Guo, P. and P. Zipkin. 2009. The impacts of customers' delay-risk sensitivities on a queue with balking. *Probability in the Engineering and Informational Sciences*, 23, 409-432.
- P30. Guo, P. and P. Zipkin. 2009. The effects of the availability of waiting-time information on a balking queue. *European Journal of Operational Research*, 198, 199-209.
- P31. Guo, P. and P. Zipkin. 2008. The effects of information on a queue with balking and phase-type service times. *Naval Research Logistics*, 55, 406-411.
- P32. Guo, P. and P. Zipkin. 2007. Analysis and comparison of queues with different levels of delay information. *Management Science*, 53, 962-970.

Hong Kong RGC GRF Grants

1. **Principal Investigator**. Project Title: Joint Inventory and Markdown Management for Perishable Products with Censored Demand Data.
2. **Principal Investigator**. Project Title: Study on Doctor-Shopping Behavior among Patients and Methods to Reduce This Problem.
3. **Principal Investigator**. Project Title: Opportunities, Challenges, and Regulation of Car-Hailing Apps Operated by Didi Kuaidi and Uber.
4. **Principal Investigator**. Project Title: A Study of Congestion Measurement in Health Care Systems: Why Patients' Waiting Time is not a Good Indicator?
5. **Principal Investigator**. Project Title: A Study of Two Health Care Subsidy Schemes: Unconditional Partial Subsidy versus Full Subsidy with Waiting Time Requirement.
6. **Principal Investigator**. Project Title: A Comparison Study between a Free Public Health Care System and a Two-Tier Health Care System.
7. **Principal Investigator**. Project Title: Procurement Outsourcing: Price Negotiation and Quantity Commitment in a Three-Tier Supply Chain.

HONORS AND AWARDS

- **First Prize**, the 11th POMS-HK (2020) International Conference Best Student Paper Competition. Paper Title: Gender-Based Operational Issues Arising from On-Demand Ride-Hailing Platforms: Safety Concerns and System Configuration. Supervised Student: Yanli Tang
- **PBS Fellow Award**, Faculty of Business, the HK PolyU, 2018/2019, 2017/2018
- **Third Prize**, 2019 POMS International Conference in China Best Student Paper Competition. Paper Title: Gender-Based Operational Issues Arising from On-Demand Ride-Hailing Platforms: Safety Concerns, Service Systems, and Pricing and Wage Policy. Supervised Student: Yanli Tang
- **Outstanding Service Award** for organizing the Seventh POMS-HK International Conference, presented by the Production and Operations Management Society at the POMS

27th Annual Conference, Orlando, Florida, 2016

- **Honorable Mention**, 2016 CSAMSE/Columbia China Business Initiative Best Paper Award. Paper title: “Fee-For-Service vs. Bundled Payment: A Comparison from Aspects of Congestion and Service Quality”
- **Recipient, Faculty Prize** for outstanding performance/achievement (research and scholarly activities), Faculty of Business, PolyU, 2014/2015, 2010/2011
- **FB Fellow Award**, Faculty of Business, the HK PolyU, 2013/2014
- **Second Prize**, 2011 POMS-HK International Conference Best Student Paper Competition. Paper title: “Comparison of Two Vertical Outsourcing Structures under Push, Pull and Two wholesale-Price Contracts”. Supervised Student: Baozhuang Niu
- **Honorable Mention**, 2009 CSAMSE/Columbia China Business Initiative Best Paper Award. Paper Title: “Two-Wholesale-Price Contracts in a Three-Tier Supply Chain”
- **Grant Recipient**, CIBER Doctoral Consortium on International Operations Management, Purdue University, 2003
- **Ph.D. Fellowship**, Duke University, 2001-2006

DOCTORAL SUPERVISION

Xue Zhao (Chief-supervisor), Ph.D., Hong Kong Polytechnic University, ongoing

Zhengwei Luo (Chief-supervisor), Ph.D., Hong Kong Polytechnic University, ongoing

Yanli Tang (Co-supervisor, jointly supervised with Yulan Wang), Ph.D., Hong Kong Polytechnic University, ongoing.

Fengfeng Huang (Chief-supervisor), Ph.D., Hong Kong Polytechnic University, 2018

First Placement: University of Electronic Science and Technology of China.

Robin Li (Co-supervisor, jointly supervised with Zhaotong Lian), Ph.D., University of Macau, 2014

First Placement: Macau University of Science and Technology

Qingying Li (Co-supervisor, jointly supervised with Chung-Lun Li), Ph.D., Hong Kong Polytechnic University, 2013

First Placement: Donghua University, China

Baozhuang Niu (Chief-supervisor), Ph.D., Hong Kong Polytechnic University, 2011

First Placement: Sun Yat-sen University, China

ACADEMIC SERVICES

- **Senior Editor**, *Production and Operations Management* (UT-Dallas Journal), 2016-.
- **Associate Editor**, *Queueing Models and Service Management*. 2016-.
- **Academic Advisor** for the University of Macau’s new Business Analytics Program
- **Vice President**, POMS-HK Society, 2019-
- **Discussant** for MSOM SIG conference, 2019
- **Judge** for 2018 Best Student Paper Competition for POMS’ College of Supply Chain Management, 2018

- **Panel Member**, Academic Job Market of Asia Colloquium, The Ninth POMS-HK International Conference, CUHK, 2018
- **Judge** for the best paper competition of the CSAMSE Tenth Annual International Conference, Guangzhou, 2017
- **Organizing Committee Co-Chair**, the Seventh POMS-HK International Conference, Macau, January 2016
- **Judge** for POMS-HK International Conference Best Student Paper Competition, held in 2011, 2014, 2016
- **Organizing Committee Member**, the Fifth POMS-HK International Conference, 2015, 2019
- **Program Committee Member**, the POMS-HK International Conference held in 2014, 2017, 2018