Jin Guang

Contact Information

5807 South Woodlawn Avenue
Chicago, Illinois 60637, USA

jin.guang@chicagobooth.edu
j-guang.github.io

Research Areas

Applied probability; analysis, control, and simulation of stochastic networks.

Academic Position

Booth School of Business, University of Chicago

Postdoctoral Principal Researcher in Operations Management, September 2025–Present.

- Advisor: Baris Ata.

Education

School of Data Science, The Chinese University of Hong Kong, Shenzhen

Ph.D. in Data Science, July 2025.

- Advisor: Xinyun Chen.

School of Electronic Science and Engineering, Nanjing University

B.Eng. in Communication Engineering, June 2020.

Honors and Awards

2020–2025	Presidential Fellowship, The Chinese University of Hong Kong, Shenzhen.
2020	Outstanding Graduate, Nanjing University.
2017	National Scholarship, Ministry of Education of the People's Republic of China.
	Outstanding Student, Nanjing University.

Working Papers

Baris Ata, Jin Guang, Michael Harrison, and Nian Si. *Diffusion-Based Policies for Dynamic Control of Stochastic Processing Networks*. Under review at *Stochastic Systems*.

Zhen-Qing Chen, Jim Dai, and Jin Guang. *Functional Limits of Generalized Jackson Networks in Multi-scale Heavy Traffic*. Under major revision at *Mathematics of Operations Research*.

Journal Articles

Jin Guang, Xinyun Chen, Jim Dai, and Peter W. Glynn. *Asymptotic product-form steady-state distribution for semimartingale reflecting Brownian motion in multi-scaling regime. Stochastic Processes and their Applications*, 203, 105098, 2027 (published online in 2026).

Jin Guang, Xinyun Chen, and Jim Dai. *Uniform moment bounds for generalized Jackson networks in multiscale heavy traffic. Mathematics of Operations Research*, 51(1), 668–685, 2026.

Conference Proceedings

Tianfeng Liu, Kaihui Gao, Li Chen, Dan Li, Jin Guang, Xinyun Chen, Vincent Liu, Zhiyong Chen, Yiwei Zhang, Ni Jin, and Ran Zhang. *CCEval: Accurately and Confidently Evaluating Performance Metrics of Congestion Control Algorithms for Datacenter Networks*. 23rd USENIX Symposium on Networked Systems Design and Implementation (NSDI 2026), 2175–2189.

Jin Guang, Yaosheng Xu, and Jim Dai. *Steady-State Convergence of the Continuous-Time Routing System with General Distributions in Heavy Traffic*. ACM SIGMETRICS 2025. Published in *Proceedings of the ACM on Measurement and Analysis of Computing Systems*, 9(1), 1–29, 2025.

Jin Guang, Guiyu Hong, Xinyun Chen, Xi Peng, Li Chen, Bo Bai, and Gong Zhang. *Tail Quantile Estimation for Non-Preemptive Priority Queues*. 2022 Winter Simulation Conference (WSC), 85–96.

Yihan Pan, Zhenghang Xu, Jin Guang, Jingjing Sun, Chengwenjian Wang, Xuanming Zhang, Xinyun Chen, Jim Dai, Yichuan Ding, Pengyi Shi, Hongxin Pan, Kai Yang, and Song Wu. *A High-Fidelity, Machine-Learning Enhanced Queueing Network Simulation Model for Hospital Ultrasound Operations*. 2021 Winter Simulation Conference (WSC), 1–12.

Conference Talks

Functional Limits of Generalized Jackson Networks in Multi-scale Heavy Traffic. INFORMS Annual Meeting, Atlanta, Georgia (October 2025); 22nd INFORMS Applied Probability Conference (APS 2025), Atlanta, Georgia (June–July 2025).

Steady-State Convergence of the Continuous-Time Routing System with General Distributions in Heavy Traffic. ACM SIGMETRICS 2025, Stony Brook, New York (June 2025); INFORMS Annual Meeting, Seattle, Washington (October 2024); MAthematical performance Modeling and Analysis (MAMA) Workshop, ACM SIGMETRICS/IFIP PERFORMANCE 2024, Venice, Italy (June 2024).

Uniform Moment Bounds for Generalized Jackson Networks in Multiscale Heavy Traffic. 40 Years of Reflected Brownian Motion and Related Topics, Roscoff, France (April 2023).

Teaching Experience

School of Data Science, The Chinese University of Hong Kong, Shenzhen

Teaching Assistant

Stochastic Simulation	Spring and Fall 2023
Reinforcement Learning	Spring 2022
Stochastic Processes	Spring and Fall 2021
Introduction to Data Analytics	Fall 2020