Yanlın Qu

Columbia Business School

EMPLOYMENT

Participant Process of the P

NY, USA

PLOYMENT Postdoctoral Researcher in the Decision, Risk, and Operations Division

2024 - 2026

Mentors: Assaf Zeevi and Hongseok Namkoong

EDUCATION

Stanford University
PhD in Management Science and Engineering

CA, USA 2018 - 2024

Advisors: Peter Glynn and Jose Blanchet

Markov Chain Convergence Analysis: From Pen and Paper to Deep Learning

University of Science and Technology of China

Anhui, China

BSc in Mathematics and Applied Mathematics

2014 - 2018

Research Interests Multi-armed bandits

Markov chain convergence analysis

Deep learning for applied probability

Stochastic simulation

PUBLICATIONS

Y. Qu, J. Blanchet, and P. Glynn. Computable Bounds on Convergence of Markov Chains in Wasserstein Distance via Contractive Drift. *Annals of Applied Probability*, arXiv, 2025.

- Applied Probability Society Best Student Paper Prize, 2023
- Applied Probability Society Conference Best Poster Award, 2023

Y. Qu, J. Blanchet, and P. Glynn. Deep Learning for Computing Convergence Rates of Markov Chains. *NeurIPS* 2024 (spotlight).

P. Glynn. and Y. Qu. On a New Characterization of Harris Recurrence for Markov Chains and Processes. *Mathematics*, 2023.

Preprints

- Y. Qu, H. Namkoong, and A. Zeevi. A Broader View of Thompson Sampling. Ongoing.
- Y. Qu, H. Namkoong, and A. Zeevi. What does Thompson Sampling Optimize? Under review at *NeurIPS*.
- Y. Qu, J. Blanchet, and P. Glynn. Deep Learning for Markov Chains: Lyapunov Functions, Poisson's Equation, and Stationary Distributions. Submitted to *Special Issue: 40 Years of QUESTA, Queueing Systems*, 2025.
- Y. Qu, T. Rokicki, and H. Yang. Rubik's Cube Scrambling Requires at Least 26 Random Moves. *arXiv*, 2024. (personal interest)
- **Y. Qu**, R. Kant, Y. Chen, B. Kitts, S. Gultekin, A. Flores, and J. Blanchet. Double Distributionally Robust Bid Shading for First Price Auctions. *arXiv*, 2024. (Yahoo intern)
- Y. Qu, J. Blanchet, and P. Glynn. Strong Limit Interchange Property of a Sequence of Markov Processes.
- Y. Qu, J. Blanchet, and P. Glynn. Estimating the Convergence Rate to Equilibrium of a Markov Chain via Simulation.
- Y. Qu and P. Glynn. Bias of Markov Chain Sample Quantile.
- Y. Qu and P. Glynn. Uniform Edgeworth Expansions for Markov Chains.

T	I served as a teaching assistant for the following MS&E courses:		
Teaching	324: Stochastic Methods in Engineer	ing 2	2021, 2022, 2023, 2024
	323: Stochastic Simulation		2020, 2024
	321: Stochastic Systems		2023
	221: Stochastic Modeling		2020
	220: Probabilistic Analysis		2019, 2022
	211: Introduction to Optimization		2021
	125: Introduction to Applied Statistic	cs	2020
	260: Introduction to Operations Management		2020
Awards	Centennial Teaching Assistant Award	I	2024
	Applied Probability Society Best Student Paper Prize		2023
	Applied Probability Society Conference Best Poster Award		2023
	Dantzig-Lieberman Operations Research Fellowship		2021
	Guo Moruo Scholarship		2017
Academic Service	I reviewed papers submitted to the following journals and conferences:		
	European Journal of Operational Research		
	Mathematics of Operations Research		
	Annals of Applied Probability		
	Operations Research		
	NeurIPS 2025		
References	Peter Glynn	Jose Blanchet	
	Thomas Ford Professor	Professor	
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	Assaf Zeevi	Hongseok Namkoong	
	Kravis Professor of Business Columbia Business School Assistant Professor Columbia Business School		
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