## Yanlın Qu

Employment

Columbia Business School

NY, USA

Postdoctoral Researcher in the Decision, Risk, and Operations Division

2024 - 2026

Mentors: Assaf Zeevi and Hongseok Namkoong

**EDUCATION** 

Stanford University

CA, USA

PhD in Management Science and Engineering

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.
  - To be submitted to Operations Research, 2025
  - Job market paper

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, arXiv, 2025
- An extended abstract is accepted by NeurIPS 2025 Workshop MLxOR

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.

Teaching	I served as a teaching assistant for the following MS&E courses:		
	324: Stochastic Methods in Engineer	ring 2	021, 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 Statistics		2020
	260: Introduction to Operations Management		2020
	Constitution Assistant A	1	2024
Awards	Centennial Teaching Assistant Award		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:		
	European Journal of Operational Research		
	Mathematics of Operations Research		
	Annals of Applied Probability		
	Operations Research		
	Dates Class	r pl. 1	
References	Peter Glynn Thomas Ford Professor	<b>Jose Blanchet</b> Professor	
	Stanford University	Stanford University	
	glynn@stanford.edu	jose.blanchet@stanf	ford.edu
	Assaf Zeevi	Hongseok Namkoong	
	Kravis Professor of Business	Assistant Professor	
	Columbia Business School	Columbia Business Sch	iool