

Shuo Qin

CHERN INSTRUCTOR · BIMSA

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Employment

Beijing Institute of Mathematical Sciences and Applications

CHERN POSTDOCTORAL INSTRUCTOR

Beijing

Jun. 2024 - Present

Education

New York University

PH.D. IN MATHEMATICS

- Supervisor: Prof. Pierre Tarrès
- Thesis: Reinforced Random Walks and Interacting Urns

New York & Shanghai

Sept. 2019 - Sept. 2024

Fudan University

BACHELOR OF SCIENCE IN MATHEMATICS AND APPLIED MATHEMATICS

- Thesis supervisor: Prof. Jiangang Ying

Shanghai

Sept. 2015 - Jun. 2019

Research Interest

Probability theory, especially self-interacting random processes and random walks in random/dynamic environments.

Publications

PUBLISHED/ACCEPTED

Shuo Qin. Recurrence-Transience phase transition of the step reinforced random walk at $1/2$. *Probability Theory and Related Fields*, 2026.

Shuo Qin. Recurrence and transience of multidimensional elephant random walks. *Annals of Probability*, 2025.

PREPRINTS

Yuval Peres, **Shuo Qin.** Mixing times of step-reinforced random walks. 2026.

Yuval Peres, **Shuo Qin.** Transition probabilities of step-reinforced random walks. 2026.

Aditya Guha Roy, Yuval Peres, **Shuo Qin**, and Junchi Zuo. How reactive gambling can backfire: ruin probability is increasing in p , Hölder continuous in initial fortune. 2025.

Rafik Aguech, **Shuo Qin.** How two elephants can learn from each other. 2025.

Shuo Qin, Pierre Tarrès. Continuous-time vertex-reinforced random walks on complete-like graphs. 2023.

Shuo Qin. Interacting urn models with strong reinforcement. 2023.

Awards, Fellowships & Grants

2025-2027	Step-reinforced random walks on Cayley graphs (2025M773086), China Postdoctoral Science Foundation, PI	CNY 80000
2025	Yeuk-Lam (Ruolin) Paper Award, BIMSA	
2019-2024	NYU Shanghai Doctoral Fellowship, NYU Shanghai	
2019	Outstanding Graduates of Fudan University, Fudan University	
2018	Taiping Life Insurance Scholarship, Fudan University	
2017	Willis Towers Watson Scholarship, Fudan University	

Academic Visits

Isaac Newton Institute for Mathematical Sciences

PARTICIPANT OF THE PROGRAMME STOCHASTIC SYSTEMS FOR ANOMALOUS DIFFUSION

Cambridge

Nov. 2024 - Dec. 2024

LPSM at Sorbonne Université

VISITING STUDENT

Paris

Feb. 2023 - May 2023

Invited Talks

- Apr. 2026. 3rd Joint Academic Conference of Beijing-Tianjin-Hebei Mathematical Societies, Capital Normal University
- Dec. 2025. 2025 IMS International Conference on Statistics and Data Science (ICSDS), Seville, Spain
- Sep. 2025. Probability Seminar, AMSS at CAS
- Apr. 2025. Al-Khwarizmi Applied Mathematics Webinar (Online)
- Mar. 2025. Probability Seminar, Tsinghua University
- Dec. 2024. Programme on Stochastic Systems for Anomalous Diffusion, Isaac Newton Institute for Mathematical Sciences
- Dec. 2024. Probability Seminar, University of Bath
- Nov. 2024. Probability Seminar, Peking University
- May 2024. NYU Shanghai-Kyoto-Waseda Young Probabilists' Meeting, Kyoto University
- Mar. 2024. Workshop on Random Walks, Tianyuan Mathematics Research Center
- Jan. 2024. Probability and Statistical Physics Seminar, Tsinghua Sanya International Mathematics Forum
- Dec. 2023. Probability Seminar, Northeastern University at Qinhuangdao (Online)
- Dec. 2023. Yangtze River Delta Probability & Statistics Seminar, East China Normal University
- Oct. 2023. Probability Seminar, NYU Shanghai
- Oct. 2023. Probability Seminar, Fudan University

Teaching Experience

Spring 2026	Convergence and Mixing Times of Markov Chains, Instructor	BIMSA & Tsinghua
Fall 2025	A Modern Introduction to Probability, Teaching Assistant	Tsinghua University
Spring 2025	Ergodic Theory, Teaching Assistant	Tsinghua University
Fall 2024	Introduction to p-harmonic functions, Teaching Assistant	Tsinghua University
Fall 2023	Probability and Statistics & Introduction to Stochastic Processes, Grader	NYU Shanghai
Spring 2023	Probability and Statistics, Grader	NYU Shanghai
Fall 2022	Calculus, Grader	NYU Shanghai
Spring 2022	Probability and Statistics, Teaching Assistant	NYU Shanghai
Fall 2021	Probability and Statistics, Teaching Assistant	NYU Shanghai
Spring 2021	Honors Theory of Probability, Teaching Assistant	NYU Shanghai
Fall 2020	Calculus, Teaching Assistant	NYU Shanghai
2018 - 2019	Mathematics Department Tutoring Lab, Tutor	Fudan University

Academic Service

Referee for the *Annals of Probability*, *Annals of Applied Probability*, *Stochastic Processes and their Applications*, *Journal of Mathematical Physics*, *Chinese Annals of Mathematics (Series B)*.

Co-organiser (with Yuval Peres) for BIMSA Probability and Dynamical Systems Seminar.

2025, 2026 Frontiers of Science Award (ICBS) section manager (Probability Theory and Stochastic Analysis).