

Yifan Jiang

yifan.jiang@imperial.ac.uk • <https://yifanjiang233.github.io> • Google Scholar Page

EMPLOYMENT	Imperial College London, London, United Kingdom ▪ Chapman Fellow in Mathematics	Sep 2025 – Present
EDUCATION	University of Oxford, Oxford, United Kingdom ▪ DPhil in Mathematics of Random Systems ▪ Supervised by Prof. Jan Oblój and co-supervised by Prof. Gui-Qiang Chen ▪ <i>Adapted Wasserstein distances and their applications in distributionally robust optimization</i> Fudan University, Shanghai, China ▪ BSc in Mathematics and Applied Mathematics	Sep 2021 – Sep 2025 Sep 2016 – Jul 2020
	The University of Texas at Austin, Austin, United States of America ▪ Study abroad in Mathematics	Aug 2018 – Dec 2018
RESEARCH INTERESTS	▪ Stochastic analysis, optimal transport (especially for measures on path space), multi-particle systems and their large population limits ▪ Distributionally robust optimization, applications to robust finance and machine learning	
ACADEMIC SERVICE	Organizer, Finance and Stochastics Seminar at Imperial College Organizer, Berlin Junior Researchers in Stochastic Optimal Control Workshop Reviewer, <i>Applied Mathematics and Optimization</i> , <i>Annals of Applied Probability</i> , <i>Biometrika</i> , <i>Finance and Stochastics</i> , <i>Mathematical Finance</i> , <i>Mathematics of Operations Research</i> , <i>Probability, Uncertainty and Quantitative Risk</i> , <i>SIAM Journal on Control and Optimization</i> .	Sep 2025 Sep 2023
TEACHING EXPERIENCE	Lecturer, Imperial College London ▪ Optimisation in Machine Learning ▪ Probability Refresher ▪ Simulation Methods for Finance ▪ Portfolio Management Teaching Assistant, University of Oxford ▪ Part A Probability ▪ B8.1 Probability, Measure, and Martingales ▪ B8.1 Probability, Measure, and Martingales ▪ MCF Advanced Numerical Methods Tutor, University of Oxford ▪ C4.9 Optimal Transport and Partial Differential Equations ▪ B8.3 Mathematical Models of Financial Derivatives	Autumn Term 2026 Autumn Term 2026 Spring Term 2026 Autumn Term 2025 Michaelmas Term 2024 Michaelmas Term 2023 Michaelmas Term 2022 Hilary Term 2022 Michaelmas Term 2023 Hilary Term 2023
AWARDS & HONORS	▪ Travel Award for Young Researchers at the 12th Bachelier World Congress ▪ Finalists of Alibaba Global Mathematics Competition (10th of 50k+ participants) ▪ Oxford-Radcliffe Graduate Scholarship (4-year full funding) ▪ Samsung Scholarship at Fudan University (first prize)	Jul 2024 Jun 2022 May 2021 Oct 2017

- PUBLICATIONS**
- [1] Sequential propagation of chaos
with K. Du and X. Li, to appear at *Acta Mathematica Sinica*, 2026.
 - [2] Wasserstein distributional robustness of neural networks
with X. Bai, G. He and J. Obłój, *Advances in Neural Information Processing Systems*, 2023.
 - [3] Empirical approximation to invariant measures for McKean–Vlasov processes: mean-field interaction vs self-interaction
with K. Du and J. Li, *Bernoulli*, 2023, vol. 29(3), 2492-2518.
 - [4] Existence and distributional chaos of points that are recurrent but not Banach recurrent
with X. Tian, *Journal of Dynamics and Differential Equations*, 2022.
 - [5] Convergence of the Deep BSDE method for FBSDEs with non-Lipschitz coefficients
with J. Li, *Probability, Uncertainty and Quantitative Risk*, 2021, vol. 6(4), 391-408.
- PREPRINTS**
- [6] Schrödinger bridge with transport relaxation
with R. Xu and L. Zhang, arxiv:2602.08118 2026.
 - [7] A transfer principle for computing the adapted Wasserstein distance between stochastic processes
with F. R. Lim, arxiv:2505.21337 2025.
 - [8] Wasserstein distributional adversarial training for deep neural networks
with X. Bai, G. He, and J. Obłój, arXiv:2502.09352, 2025.
 - [9] Sensitivity of causal distributionally robust optimization
with J. Obłój, arXiv:2408.17109, 2024.
 - [10] The *anytime* convergence of stochastic gradient descent with momentum: from a continuous-time perspective
with Y. Feng, T. Wang, and Z. Ying, arXiv:2310.19598, 2024.
 - [11] Duality of causal distributionally robust optimization
arXiv:2401.16556, 2024, under review at *SICON*.
- IN PREPARATION**
- [12] Computing the adapted Wasserstein distance via time discretization
with F. R. Lim, 2025+.
- INVITED TALKS
(SELECTED)**
- *Schrödinger bridge with transport relaxation* Sep 2026
International Conference on Computational Finance 2026
Oxford, United Kingdom
 - *Hedging under model uncertainty and transaction costs* Jul 2026
13th Bachelier World Congress
Bolgna, Italy
 - *Schrödinger bridge with transport relaxation* Jun 2026
3rd ETH-HK-Imperial Joint Workshop
Zurich, Switzerland
 - *Schrödinger bridge with transport relaxation* Feb 2026
ESI Workshop on “Probabilistic Mass Transport - from Schrödinger to Stochastic Analysis”
Vienna, Austria
 - *Adapted Wasserstein distances and their applications to DRO* Dec 2025
Fudan University
Shanghai, China

- *Adapted Wasserstein distances and their applications to DRO* Dec 2025
Shanghai Jiao Tong University
Shanghai, China
- *Adapted Wasserstein distances and their applications to DRO* Nov 2025
KCL Math Finance Seminar
London, United Kingdom
- *Adapted Wasserstein distances and their applications to DRO* Sep 2025
Imperial College Finance and Stochastics Seminar
London, United Kingdom
- *Transfer principle for computing the adapted Wasserstein distance* Sep 2025
CIRM: Advances in Stochastic Analysis for Handling Risks in Finance and Insurance
Marseille, France
- *Transfer principle for computing the adapted Wasserstein distance* Jul 2025
Workshop on Optimal Transport for Complex Data
Vienna, Austria
- *Path-dependent PDEs arising from the adapted Wasserstein distance* Apr 2025
Oxbridge PDE Conference
Cambridge, United Kingdom
- *Sensitivity of causal distributionally robust optimization* Nov 2024
Vienna Seminar in Mathematical Finance and Probability
Vienna, Austria
- *Sensitivity of causal distributionally robust optimization* Nov 2024
Talks in Financial and Insurance Mathematics at ETH
Zurich, Switzerland
- *Distributionally robust optimization in dynamic context* Oct 2024
INFORMS Annual Meeting
Seattle, United States of America
- *Sensitivity of causal distributionally robust optimization* Sep 2024
Berlin-Oxford Summer School in Mathematics of Random Systems
Oxford, United Kingdom
- *Sensitivity of causal distributionally robust optimization* Jul 2024
12th Bachelier World Congress of the Bachelier Finance Society
Rio de Janeiro, Brazil
- *Wasserstein distributional robustness of neural networks* Apr 2024
Oxford–Princeton Workshop on Financial Mathematics and Stochastic Analysis
Princeton, United States of America
- *Duality of causal distributionally robust optimization: the discrete-time case* Apr 2024
Oxford–ETH Workshop on Mathematical & Computational Finance
Zurich, Switzerland
- *Causal distributionally robust optimization – duality and sensitivity* Feb 2024
Imperial College Finance and Stochastics Seminar
London, United Kingdom
- *Causal distributionally robust optimization – sensitivity and duality* Sep 2023
CIRM: Advances in Stochastic Analysis for Handling Risks in Finance and Insurance
Marseille, France
- *Sensitivity of robust optimization over an adapted Wasserstein ambiguity set* Sep 2022
London–Oxford–Warwick Mathematical Finance Workshop
Oxford, United Kingdom

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