

Yifan Jiang

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EDUCATION	University of Oxford, Oxford, United Kingdom	Sep 2021 – Present
	<ul style="list-style-type: none">▪ DPhil student in Mathematics of Random Systems▪ Under the supervision of Prof. Jan Obłój and Prof. Gui-Qiang Chen	
	Fudan University, Shanghai, China	Sep 2016 – Jul 2020
	<ul style="list-style-type: none">▪ BSc in Mathematics and Applied Mathematics	
	The University of Texas at Austin, Austin, United States of America	Aug 2018 – Dec 2018
	<ul style="list-style-type: none">▪ Study abroad in Mathematics	
RESEARCH INTERESTS	<ul style="list-style-type: none">▪ Stochastic control, optimal transport, mathematical finance▪ Fluid dynamics, scalar conservation laws, mean-field systems	
PUBLICATIONS	<ul style="list-style-type: none">[1] Wasserstein distributional robustness of neural networks with X. Bai, G. He and J. Obłój, <i>Advances in Neural Information Processing Systems</i>, 2023.[2] Empirical approximation to invariant measures for McKean–Vlasov processes: mean-field interaction vs self-interaction with K. Du and J. Li, <i>Bernoulli</i>, 2023, vol. 29(3), 2492-2518.[3] Existence and distributional chaos of points that are recurrent but not Banach recurrent with X. Tian, <i>Journal of Dynamics and Differential Equations</i>, 2022.[4] Convergence of the Deep BSDE method for FBSDEs with non-Lipschitz coefficients with J. Li, <i>Probability, Uncertainty and Quantitative Risk</i>, 2021, vol. 6(4), 391-408.	
PREPRINTS	<ul style="list-style-type: none">[5] The <i>anytime</i> convergence of stochastic gradient descent with momentum: from a continuous-time perspective with Y. Feng, T. Wang, and Z. Ying, arXiv:2310.19598, 2024.[6] Duality of causal distributionally robust optimization: the discrete-time case arXiv:2401.16556, 2024.[7] Sequential propagation of chaos with K. Du and X. Li, arXiv:2301.09913, 2023.	
AWARDS & HONORS	<ul style="list-style-type: none">▪ Finalists of Alibaba Global Mathematics Competition (10th out of 50k+)▪ Oxford-Radcliffe Graduate Scholarship (4-year full scholarship)▪ Putnam Mathematical Competition top 3%▪ Samsung Scholarship at Fudan University (the first prize)	<ul style="list-style-type: none">Jun 2022May 2021Dec 2018Oct 2017
RESEARCH EXPERIENCE	Research Assistant , Fudan University	Aug 2020 – Aug 2021
	<ul style="list-style-type: none">▪ Under the supervision of Prof. Shanjian Tang and Dr. Kai Du▪ Stochastic control, forward-backward SDEs, neural networks	
	Undergraduate Researcher , Fudan University	Mar 2019 – Mar 2020
	<ul style="list-style-type: none">▪ Under the supervision of Prof. Xueting Tian▪ Topological dynamical systems, chaos, ergodic measures	

TEACHING EXPERIENCE	Teaching Assistant , University of Oxford	
	▪ B8.1 Probability, Measure, and Martingales	Michaelmas Term 2023
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	▪ MCF Advanced Numerical Methods	Hilary Term 2022
	Tutor , University of Oxford	
	▪ C4.9 Optimal Transport and Partial Differential Equations	Michaelmas Term 2023
	▪ B8.3 Mathematical Models of Financial Derivatives	Hilary Term 2023
SELECTED TALKS	▪ <i>Causal distributionally robust optimization – duality and sensitivity</i> Imperial College Mathematical Finance Seminar London, United Kingdom	Feb 2024
	▪ <i>Causal distributionally robust optimization – sensitivity and duality</i> CIRM: Advances in Stochastic Analysis for Handling Risks in Finance and Insurance Marseille, France	Sep 2023
	▪ <i>Sensitivity of robust optimization over an adapted Wasserstein ambiguity set</i> London–Oxford–Warwick Mathematical Finance Workshop Oxford, United Kingdom	Sep 2022
ATTENDED WORKSHOPS	▪ Clay Research Conference and Workshops Oxford, United Kingdom	Sep 2023
	▪ Junior Researcher in Stochastic Optimal Control (Co-organizer) Berlin, Germany	Sep 2023
	▪ Oxford–ETH Workshop on Mathematical & Computational Finance Oxford, United Kingdom	Jun 2023
	▪ Workshop on Model-free Mathematical Finance London, United Kingdom	May 2023
	▪ Conference in Mathematics of Random Systems 2023 Edinburgh, United Kingdom	Apr 2023
	▪ Oxbridge PDE Conference Cambridge, United Kingdom	Mar 2023
	▪ Oxford–Princeton Workshop on Stochastic Analysis and Mathematical Finance Oxford, United Kingdom	Oct 2022
	▪ Mathematics of Random Systems Summer School Oxford, United Kingdom	Sep 2022
	▪ Durham Symposium on Stochastic Dynamics, Nonlinear Probability, and Ergodicity Durham, United Kingdom	Aug 2022
	▪ Workshop in Stability Analysis for Nonlinear PDEs Oxford, United Kingdom	Aug 2022
	▪ International PDE Conference Oxford, United Kingdom	Jul 2022
	▪ vICM Sectional Workshop in Applied Mathematics London, United Kingdom	Jul 2022
	▪ Oxford–ETH Workshop on Mathematical & Computational Finance Zurich, Switzerland	Jun 2022

[Updated on 2024-03-15]