

Curriculum vitæ

Personal informations

Songbo Wang

Born on February 4th, 1998 in Neijiang, China

PhD candidate in applied mathematics at IP Paris

<https://www.normalesup.org/~swang/>

Education

2021– PhD candidate in applied mathematics, IP Paris
 Advisors: Nizar Touzi and Zhenjie Ren

2017–2021 *Élève*, École normale supérieure
 Master degrees at Paris-Saclay and Paris-Dauphine

2014–2018 Bachelor in physics, Peking University

Publications and preprints

In the order of appearance of preprints

- 2024 Songbo Wang. Uniform log-Sobolev inequalities for mean field particles with flat-convex energy. 2024. arXiv: [2408.03283](#) [[math.PR](#)]
- 2024 Songbo Wang. Sharp local propagation of chaos for mean field particles with $W^{-1,\infty}$ kernels. 2024. arXiv: [2403.13161](#) [[math.PR](#)]
- 2024 Pierre Monmarché, Zhenjie Ren, and Songbo Wang. Time-uniform log-Sobolev inequalities and applications to propagation of chaos. 2024. arXiv: [2401.07966](#) [[math.PR](#)]
- 2023 Kai Du, Zhenjie Ren, Florin Suci, and Songbo Wang. Self-interacting approximation to McKean–Vlasov long-time limit: a Markov chain Monte Carlo method. 2023. arXiv: [2311.11428](#) [[math.PR](#)]
- 2023 Pierre Monmarché and Songbo Wang. Logarithmic Sobolev inequalities for non-equilibrium steady states. 2023. arXiv: [2309.07858](#) [[math.PR](#)]
- 2023 Fan Chen, Yiqing Lin, Zhenjie Ren, and Songbo Wang. Uniform-in-time propagation of chaos for kinetic mean field Langevin dynamics. *Electron. J. Probab.*, 29, 17, 2024. DOI: [10.1214/24-EJP1079](#)
- 2023 Julien Claisse, Giovanni Conforti, Zhenjie Ren, and Songbo Wang. Mean field optimization problem regularized by Fisher information. 2023. arXiv: [2302.05938](#) [[math.PR](#)]
- 2022 Fan Chen, Zhenjie Ren, and Songbo Wang. Uniform-in-time propagation of chaos for mean field Langevin dynamics. *Ann. Inst. Henri Poincaré, Probab. Stat.*, 2024. arXiv: [2212.03050](#) [[math.PR](#)]. Forthcoming

- 2022 Fan Chen, Zhenjie Ren, and Songbo Wang. Entropic fictitious play for mean field optimization problem. *J. Mach. Learn. Res.*, 24, 211, 2023. URL: <http://jmlr.org/papers/v24/22-0411.html>
- 2017 Jun Wang, Zhao-Yu Han, Song-Bo Wang, Zeyang Li, Liang-Zhu Mu, Heng Fan, and Lei Wang. Scalable quantum tomography with fidelity estimation. *Phys. Rev. A*, 101(3), 032321, 2020. DOI: [10.1103/PhysRevA.101.032321](https://doi.org/10.1103/PhysRevA.101.032321)

Selected presentations

- 2024-04-24 Analysis Research Interaction Team, Peking University, online
- 2024-02-27 Groupe de Travail Méthodes Stochastiques et Finance, École des Ponts, Champs-sur-Marne, France
- 2024-01-19 16ème Colloque Bachelier en Mathématiques Financières et Calcul Stochastique, Métabief, France
- 2023-06-08 Seminar of Forschergruppe 2402, online
- 2022-08-31 Journées MAS 2022, Rouen, France
- 2022-06-29 9th International Colloquium on Backward Stochastic Differential Equations, Annecy, France
- 2022-06-01 Journées de Probabilités 2022, Orbey, France
- 2021-10-19 Séminaire ASCII, Saint-Rémy-lès-Chevreuse, France

Academic services

- 2024– Reviewer for *Probability and Mathematical Physics*
- 2023– Co-organization of the PhD seminar of [FiME](#) (*Finance for Energy Market Research Centre*)

Other activities

- 2021– Co-founder and research engineer at [Desmo Labs](#) (formerly *Debond*)

This document was last updated on September 2, 2024.