Yang Jing

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Education

Ph.D candidate in Applied Mathematics *Shanghai Jiao Tong University*
Advisor:Lei Li *Sep 2020 - Present*

B.S. in Mathematics *Shanghai Jiao Tong University*
Zhiyuan Honor's Program *Sep 2016 - June 2020*

Research interest

- Deep generative models (diffusion models and continuous normalizing flows)
- Sampling methods (including interactive particle system, MCMC and Langevin dynamics)
- Stochastic algorithms and convergence analysis

Preprints and publications

- **Yang Jing**, Jiaheng Chen, Lei Li, Jianfeng Lu (2022). A deep learning framework for geodesics under spherical Wasserstein-Fisher-Rao metric and its application for weighted sample generation. J. Sci. Comput. accepted, arXiv:2208.12145.
- **Yang Jing**, Lei Li (2024). Convergence analysis of OT-Flow for sample generation. arXiv preprint, arXiv:2403.16208.

Experience

Shanghai Jiao Tong University *September 2020 - Present*
Graduate Research Assistant *Shanghai, China*
Advisor: Lei Li

The International Council for Industrial and Applied Mathematics *August 2023*
Speaker of minisymposium *Tokyo, Japan*
Title: A deep learning framework for geodesics under sWFR for sample generation.

Academy of Mathematics and Systems Science, Chinese Academy of Sciences. *July 2021*
International Summer School on Scientific Computing *Beijing, China*
Topics: Models for particle transport and their deterministic solvers; Optimal transport and interacting particle systems.

University of Waterloo *July 2019 - Dec 2019*
Visit Scholar *Waterloo, Canada*
Topics: Dynamic Kidney Proximal Tubal Model Advisor: Anita Layton

University of Oxford *June 2018 - July 2018*
Summer exchange *Oxford, UK*
Topics: Group Theory, Manifold.

Teaching and Services

- MATH3350, Numerical ODE&PDE, Shanghai Jiao Tong University, Spring 2023 (TA).
- MA358, Numerical ODE&PDE, Shanghai Jiao Tong University, Spring 2022 (TA).
- MA358, Numerical ODE&PDE, Shanghai Jiao Tong University, Spring 2021 (TA).

Group seminars *Sep 2021-Present*
Lecturer and organizer *Shanghai, China*
Topics: Reinforcement Learning & Diffusion models.

Selected Honors

- Zhiyuan Honorary Scholarship (2017-2020)
- Liao Kaiyuan Scholarship
- Xingcai Scholarship

Skills

Programming Python, Matlab, LaTeX
Language Native in Chinese; English (TOEFL:102)