Lukang Sun

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Education

King Abdullah University of Science and Technology — Thuwal, Saudi Arabia
Ph.D. in Computer Science — 2021–Current
- Sampling, Machine Learning

Nanjing University — Nanjing, China
M.S. in Pure Mathematics — 2017–2020
- Thesis: "Harmonic functions on RCD(K,N) spaces"

Jilin University — Changchun, China
B.S. in Mathematics and Applied Mathematics — 2013–2017

Experience

Georgia Institute of Technology — Atlanta, US
Exchange student/School of Mathematics — Jan 2016 –May 2016
- Singular perturbation theory and its applications. Advisor: Howard Weiss

The Hong Kong University of Science and Technology — Hong Kong, China
Visiting student/Mathematics department — One week, Dec 2015

Teaching

- **Head Teaching Assistant** at The Chinese University of HongKong, Shenzhen — Fall 2020
  Financial Computation (FMA 4800)
- **Teaching Assistant** at Nanjing University — Fall 2016
  Advanced Mathematics
- **Teaching Assistant** at Nanjing University — Spring 2016
  Calculus

Skills

- **Coding Languages:** C, Matlab and Python
- **Mathematical Analysis:** Calculus, Real Analysis, Functional Analysis and Stochastic Calculus

Languages

- **English:** Proficient
- **Chinese:** Mother Language

Publications

[1] A. Salim, L. Sun, and P. Richtarik, "A Convergence Theory for SVGD in the Population Limit under Talagrand's Inequality T1", in *International Conference on Machine Learning*, PMLR, 2022, pp. 19 139–19 152.

[2] L. Sun, A. Karagulyan, and P. Richtarik, "Convergence of Stein Variational Gradient Descent under a Weaker Smoothness Condition", *arXiv preprint arXiv:2206.00508*, 2022.

[3] L. Sun and P. Richtárik, "A Note on the Convergence of Mirrored Stein Variational Gradient Descent under $(L_0, L_1)-$ Smoothness Condition", *arXiv preprint arXiv:2206.09709*, 2022.

[4] L. Sun and P. Richtárik, "Improved Stein Variational Gradient Descent with Importance Weights", *arXiv preprint arXiv:2210.00462*, 2022.

[5] L. Sun, A. Salim, and P. Richtárik, "Federated Learning with a Sampling Algorithm under Isoperimetry", *arXiv preprint arXiv:2206.00920*, 2022.

[6] A. Tyurin, L. Sun, K. Burlachenko, and P. Richtárik, "Sharper Rates and Flexible Framework for Nonconvex SGD with Client and Data Sampling", *arXiv preprint arXiv:2206.02275*, 2022.