

Jiadong Liang

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ACADEMIC POSITION

Peking University

Ph.D. Candidate of School of Mathematical Sciences

Sep. 2022 -

Advisor: Prof. Zhihua Zhang

EDUCATION

Peking University

Bachelor of Statistics in School of Mathematical Sciences

Sep. 2015 - Jun. 2019

RESEARCH INTERESTS

Stochastic Optimization

- Design provably efficient online stochastic algorithms for (non)-convex optimization problems with various types of random oracles.

Computational Efficient Statistics

- Discover techniques for efficiently handling statistical estimation and inference tasks with minimal computational overhead.

High Dimensional Statistics

- Develop reliable methodologies for addressing high-dimensional statistical problems under various constraints, including but not limited to differential privacy preservation, distributed data sources, and heavy-tailed random noise.

Diffusion Approximation

- Connect online stochastic methods (e.g., stochastic approximation and stochastic log-concave sampling algorithms) with continuous-time stochastic dynamics to aid in downstream tasks, such as characterizing asymptotic behavior and proposing optimal control mechanisms.

PUBLICATIONS

* indicates equal contribution.

CONFERENCE

A Statistical Analysis of Polyak-Ruppert Averaged Q-learning

2023

Xiang Li, Wenhao Yang, **Jiadong Liang**, Zhihua Zhang, Michel I. Jordan

International Conference on Artificial Intelligence and Statistics (AISTATS)

Asymptotic Behaviors of Projected Stochastic Approximation: A Jump Diffusion Perspective

2022

Jiadong Liang, Yuze Han, Xiang Li, Zhihua Zhang

Neural Information Processing Systems (NeurIPS), Spotlight (top 1.5%)

Statistical Estimation and Inference via Local SGD

2022

Xiang Li, **Jiadong Liang**, Xiangyu Chang, Zhihua Zhang

Conference on Learning Theory (COLT)

Lipschitz Generative Adversarial Nets

2019

Zhiming Zhou, **Jiadong Liang**, Yuxuan Song, Lantao Yu, Hongwei Wang, Weinan Zhang, Yong Yu, Zhihua Zhang

International Conference on Machine Learning (ICML)

PREPRINT

Stochastic Approximation MCMC, Online Inference, and Applications in Optimization of Queueing Systems

2023

Xiang Li*, **Jiadong Liang***, Xinyun Chen, Zhihua Zhang

Submitted

Online Statistical Inference for Nonlinear Stochastic Approximation with Markovian Data

2023

Xiang Li, **Jiadong Liang**, Zhihua Zhang

Submitted

Asymptotic Behaviors and Phase Transitions in Projected Stochastic Approximation: a Jump Diffusion Approach

2023

Jiadong Liang, Yuze Han, Xiang Li, Zhihua Zhang

Submitted

Intervention Generative Adversarial Networks

2020

Jiadong Liang*, Liangyu Zhang*, Cheng Zhang, Zhihua Zhang

Preprint

EXPERIENCE

Face ++ (Megvii) | *Advisor: Shuchang Zhou*
Internship

Aug. 2018 - Apr. 2019

PROFESSIONAL SERVICES

Journal Reviewer for:

- Journal of Machine Learning Research

Conference Reviewer for:

- ICML [2023], Neurips [2022, 2023], ICLR [2022], UAI [2020]

SELECTED AWARDS

May Forth Scholarship | *Peking University*

2017

SKILLS

Languages: Chinese, English

Coding: Python, L^AT_EX