Zhuoyuan Li

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Peking University

Beijing, 100871, China

Education

2020–2025*	**Ph.D.**, School of Mathematical Sciences, Peking University, Beijing, China co-supervisors: Pingwen Zhang, Bin Dong
2016–2020	**B.Sc.** School of Mathematics, Sichuan University, Chengdu, China

Research Experience

2022–present	deep learning in data assimilation
2020–2022	deep learning in numerical weather prediction

Publications

G Google Scholar

† → Equal contribution; * → Corresponding author

Journal Articles

J1. **Zhuoyuan Li***, Dong, B. & Zhang, P. Latent assimilation with implicit neural representations for unknown dynamics. *Journal of Computational Physics* **506,** 112953. ISSN: 0021-9991. https://doi.org/10.1016/j.jcp.2024.112953 (2024).

Preprints

P1. **Zhuoyuan Li**, Dong*, B. & Zhang*, P. State-observation augmented diffusion model for nonlinear assimilation. *arXiv preprint arXiv:2407.21314* (2024).

P2. Huang†, X., **Zhuoyuan Li**†, Z., Liu, H., Wang, Z., Zhou, H., Dong*, B. & Hua, B. Learning to simulate partially known spatio-temporal dynamics with trainable difference operators. *arXiv preprint arXiv:2307.14395* (2023).

Teaching

Peking University

2023 Spring	Assistant Instructor, Advanced Algebra (II)

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*Expected.

2022 Fall	Assistant Instructor, Advanced Algebra (I)
2022 Spring	Assistant Instructor, Advanced Algebra (II)
2020 Fall	Teaching Assistant[2], Advanced Mathematics (C)

Other Experience

2024	Key Laboratory of Tornado, China meteorological administration
	– develop a CNN-based model for tornado detection and classification
2022-2023	MindFlow SIG group (online), Huawei, Co. Ltd.
	– develop effective AI-based models for fluid simulation

Last updated: August 19, 2024

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[2]without teaching tasks