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Peking University
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Education

2020–2025¹ **Ph.D.**, School of Mathematical Sciences, Peking University, Beijing, China
co-supervisors: Pingwen Zhang², Bin Dong³
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

 [Google Scholar](#)

† → Equal contribution; * → Corresponding author(s)

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).

¹Expected.

²homepage: <https://www.math.pku.edu.cn/pzhang/en/>

³homepage: <http://faculty.bicmr.pku.edu.cn/~dongbin/>

Teaching

Peking University

2023 Spring	Assistant Instructor, Advanced Algebra (II)
2022 Fall	Assistant Instructor, Advanced Algebra (I)
2022 Spring	Assistant Instructor, Advanced Algebra (II)
2020 Fall	Teaching Assistant ⁴ , 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

⁴without teaching tasks