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导航栏

研究领域

- 机器学习、最优化算法、AI4Science

教育背景

- 2009-2013 山东大学数学学院 本科
- 2013-2018 北京大学数学科学学院 博士研究生

工作经历

- 2018.07-2024.03 微软研究院 Principal Researcher
- 2024.03 至今 中科院数学与系统科学研究院 应用数学所 副研究员

学术成就

- 学术论文（2021 年至今）
- Randomness Regularization with Simple Consistency Training for Neural Networks. Juntao Li, Xiaobo Liang, Lijun Wu, Yue Wang, Qi Meng, Tao Qin, Min Zhang, Tie-Yan Liu. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2024
- Does Lorentz-symmetric design boost network performance in jet physics? Congqiao Li, Huilin Qu, Sitian Qian, Qi Meng, Shiqi Gong, Jue Zhang, Tie-Yan Liu, Qiang Li. Physical Review D, 2024
- Deciphering and Integrating Invariant for Neural Operator Learning with Various Physics. Rui Zhang, Qi Meng, Zhi-Ming Ma. National Science Review, 2023
- Complex valued Neural Operator Assisted Soliton Identification. Ming Zhang, Qi Meng, Deng Zhang, Yue Wang, Guanghui Wang, Li Chen, Zhi-Ming Ma, Tie-Yan Liu. Physical Review E, 2023.
- Deep Random Vortex Method for Simulating and Inference of Navier-Stokes Equations. Rui Zhang, Peiyan Hu, Qi Meng, Yue Wang, Rongchan Zhu, Bingguang Chen, Zhi-Ming Ma, Tie-Yan Liu. Physics of Fluids, 2022
- An Efficient Lorentz Equivariant Graph Neural Network for Jet Tagging. Shiqi Gong, Qi Meng, Jue Zhang, Huilin Qu, Congqiao Li, Sitian Qian, Weitao Du, Zhi-Ming Ma, Tie-Yan Liu. Journal of High Energy Physics, 2022
- Shiqi Gong, Xinheng He, Qi Meng, Zhi-Ming Ma, Bin Shao, Tong Wang, Tie-Yan Liu. Stochastic Lag Time Parameterization for Markov State Models of Protein Dynamics. Journal of Physical Chemistry, 2022
- Ziming Liu, Bohan Wang, Qi Meng, Wei Chen, Max Tegmark, Tie-Yan Liu. Machine Learning

Non-Conservative Dynamics for New-Physics Detection. Physical Review E, 2021

- Xinquan Huang, Wenlei Shi, Qi Meng, Yue Wang, Xiaotian Gao, Jia Zhang, Tie-Yan Liu. NeuralStagger: accelerating physics-constrained neural PDE solver with spatial-temporal decomposition. In the Foutieth International Conference on Machine Learning (ICML), 2023.
- Shiqi Gong, Peiyan Hu, Qi Meng*, Hao Ni, Yue Wang, Rongchan Zhu, Bingguang Chen, Zhiming Ma, Tie-Yan Liu. Deep Latent Regularity Network for Modeling Stochastic Partial Differential Equations. In the 37th AAAI Conference on Artificail Intelligence (AAAI), 2023.
- Bohan Wang, Qi Meng, Huishuai Zhang, Ruoyu Sun, Wei Chen, Zhi-Ming Ma, Tie-Yan Liu. Does Momentum Change the Implicit Regularization on Separable Data? In the Thirty-fifth Conference on Neural Information Processing Systems (Neurips), 2022.
- Weitao Du, He Zhang, Yuanqi Du, Qi Meng*, Wei Chen, Bin Shao, Tie-Yan Liu. SE(3) Equivariant Graph Neural Networks with Complete Local Frames. In the Thirty-nineth International Conference on Machine Learning (ICML), 2022.
- Sangil Lee, Heeseung Kim, Chaehun Shin, Xu Tan, Chang Liu, Qi Meng, Tao Qin, Wei Chen, Sungroh Yoon, Tie-Yan Liu. PriorGrad: Improving Conditional Denoising Diffusion Models with Data-Dependent Adaptive Prior. In Proceedings of the 7th International Conference of Learning Representations (ICLR), 2022.
- Bohan Wang, Huishuai Zhang, Jieyu Zhang, Qi Meng, Wei Chen, Tie-Yan Liu. Optimizing Information-theoretic Generalization Bound via Anisotropic Noise of SGLD. In the Thirty-fifth Conference on Neural Information Processing Systems (Neurips), 2021.
- Xiaobo liang, Lijun Wu, Juntao Li, Yue Wang, Qi Meng, Tao Qin, Wei Chen, Min Zhang, Tie-Yan Liu. R Drop: Regularized Dropout for Neural Networks. In the Thirty-fifth Conference on Neural Information Processing Systems (Neurips), 2021.
- Bohan Wang, Qi Meng, Wei Chen, Tie-Yan Liu. On the Implicit Regularization for Adaptive Optimization Algorithms on Homogeneous Neural Networks. In the Thirty-eighth International Conference on Machine Learning (ICML), 2021.
- Xufang Luo, Qi Meng, Wei Chen, Yunhong Wang, and Tie-Yan Liu. Path-BN: Towards Effective Batch Normal ization in the Path Space for ReLU Networks. In the Conference on Uncertainty in Artificial Intelligence (UAI), 2021.
- Weiwei Sun, Chuan Meng, Qi Meng, Zhaochun Ren, Pengjie Ren, Zhumin Chen and Maarten de Rijke. Conver sations Powered by Cross-Lingual Knowledge. In The 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2021.
- Zhen Wu, Lijun Wu, Qi Meng, Yingce Xia, Shufang Xie, Tao Qin, Xinyu Dai and Tie-Yan Liu. UniDrop: A Simple yet Effective Technique to Improve Transformer without Extra Cost. In The 2021 Conference of the North American Chapter of the Association for Computational Linguistics–Human Language Technologies (NAACL), 2021.