Xiaodie Lin

(+86)13112319060
linxd19@mails.tsinghua.edu.cn
Google Scholar

EDUCATION

2019–now **Ph.D. Candidate, Computer Science and Technology**
Institute for Interdisciplinary Information Sciences, Tsinghua University, China
Advisor: Prof. Zhaohui Wei

2015–2019 **B.Eng., Software Engineering**
School of Data and Computer Science, Sun Yat-sen University, China

RESEARCH INTERESTS

- Quantum Information
- Quantum Machine Learning

SELECTED HONORS & AWARDS

Nov. 2023 "Friends of Tsinghua" Scholarship for Research Excellence
Nov. 2022 Excellence Scholarship of Interdisciplinary Information Sciences, Tsinghua University
Jun. 2019 Outstanding Undergraduate of Sun Yat-sen University
May 2018 Meritorious Winner, International Interdisciplinary Contest in Modeling (ICM)
2016-2018 National Scholarship

PUBLICATIONS

[1] Chen, Z., Lin, L., **Lin, X.**$^{(\alpha\text{-}\beta)}$, Wei, Z., & Yao, P. (2024). The generations of classical correlations via quantum schemes. *IEEE Transactions on Information Theory, 70(6), 4160-4169.*

[2] **Lin, X.**, Chen, Z., & Wei, Z. (2023). Quantifying quantum entanglement via a hybrid quantum-classical machine learning framework. *Physical Review A, 107(6), 062409.*

[3] **Lin, X.**, Chen, Z., & Wei, Z. (2023). Quantifying unknown entanglement by neural networks. *Quantum Information Processing, 22(9), 341.*

[4] Chen, Z., **Lin, X.**, & Wei, Z. (2023). Certifying unknown genuine multipartite entanglement by neural networks. *Quantum Science and Technology, 8(3), 035029.*

[5] Guo, Y., Lin, L., Cao, H., Zhang, C., **Lin, X.**, Hu, X. M., ...& Guo, G. C. (2023). Experimental entanglement quantification for unknown quantum states in a semi-device-independent manner. *Science China Information Sciences, 66(8), 180506.*

[6] **Lin, X.**$^{(\alpha\text{-}\beta)}$, Wei, Z., & Yao, P. (2021). Quantum and classical hybrid generations for classical correlations. *IEEE Transactions on Information Theory, 68(1), 302-310.*

[7] Zhang, L.*, **Lin, X.***, Wang, P., Yang, K., Zeng, X., Wei, Z., & Wang, Z. (2024). Variational optimization for quantum problems using deep generative networks. *arXiv:2404.18041.*

[8] Lin, L., Chen, Z., **Lin, X.**, & Wei, Z. (2023). All pure bipartite entangled states can be semi-self-tested with only one measurement setting on each party. *arXiv:2306.07755.* (Nature Communications. Under Review)

$(\alpha\text{-}\beta)$ denotes alphabetical ordering, * denotes equal contribution.

TEACHING EXPERIENCE

Spring 2020 **Optimization Theory**
Teaching Assistant, with Prof. Zhaohui Wei, at Tsinghua University

Fall 2019 **Quantum Complexity Theory**
Teaching Assistant, with Prof. Zhaohui Wei, at Tsinghua University

SKILLS

- Programming Language: Python, MATLAB, C++.
- Tools: AI (PyTorch), Quantum Framework (PennyLane, Cirq), Optimization (MOSEK, CVX).