

SI JIANG

Center for Quantum Information

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EDUCATION

Tsinghua University

Sept. 2023 - Jun. 2028 (Expected)

Ph.D. student in Physics, advised by Prof. Dong-Ling Deng

Tsinghua University

Sept. 2018 - Jun. 2023

B.S. in Computer Science and Technology (Yao Class)

RESEARCH INTERESTS

- **Non-equilibrium quantum matter:** Floquet and prethermal phases, discrete time crystals, topological boundary modes, and quantum simulation.
- **Quantum error correction:** qLDPC codes, Floquet codes, topological codes, and connections between dynamical phases and fault-tolerant architectures.
- **AI/ML for quantum science:** learning quantum phases of matter, physics-informed models, and machine-learning methods for quantum many-body systems.

PUBLICATIONS

First and co-first author papers (equal contribution; † corresponding author)*

- **S. Jiang**, D. Yuan, W. Jiang, D.-L. Deng[†], F. Machado[†]. Prethermal time-crystalline corner modes. [Phys. Rev. Lett. 135, 110401 \(2025\)](#).
- F. Jin*, **S. Jiang***, X. Zhu*, *et al.* Topological prethermal strong zero modes on superconducting processors. [Nature 645, 626-632 \(2025\)](#).
- W. Gong*, **S. Jiang***, D.-L. Deng[†]. No-go theorem and a universal decomposition strategy for quantum channel compilation. [Phys. Rev. Research 5, 013060 \(2023\)](#).
- **S. Jiang***, S. Lu*, D.-L. Deng[†]. Adversarial machine learning phases of matter. [Quantum Frontiers 2, 15 \(2023\)](#).
- H. Zhang*, **S. Jiang***, X. Wang*, *et al.* Experimental demonstration of adversarial examples in learning topological phases. [Nat. Commun. 13, 4993 \(2022\)](#).

Collaborative papers

- Y.-N. Lu*, D. Yuan*, *et al.* Dynamical freezing for magnetometry in an interacting spin ensemble. [Nature 653, 1027-1032 \(2026\)](#).
- K. Wang*, Z. Lu*, C. Zhang*, *et al.* Demonstration of low-overhead quantum error correction codes. [Nat. Phys. 22, 308-314 \(2026\)](#).
- L. Xiang*, W. Jiang*, Z. Bao*, *et al.* Long-lived topological time-crystalline order on a quantum processor. [Nat. Commun. 15, 8963 \(2024\)](#).

SELECTED HONORS

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| • Awardee, NSFC Young Students Basic Research Program (Ph.D. Student Track) | 2025 |
| • China National Scholarship, Ministry of Education of China | 2025 |
| • Tsinghua Comprehensive Excellence Scholarship | 2024 |
| • Tsinghua Future Researchers Scholarship | 2023 |
| • Tsinghua Research Excellence Scholarship | 2020 |
| • Gold Medal (Rank 8 / 360), 34th Chinese Physics Olympiad | 2017 |