Jiaqing Jiang

✉ jiaqingjiang95@gmail.com

Research Interest

Quantum Algorithm&Simulation, Hamiltonian Complexity

Education

2020 – now	**Ph.D (in progress) Computer Science, California Institute of Technology, USA**. Working on Quantun Information. Advisor: Thomas Vidick
2017 – 2020	**M.Sc. Computer Science, Institute of Computing Technology, CAS, China.** Working on quantum information. Advisor: Jialin Zhang
2013 – 2017	**B.Sc. Applied mathematics, Nankai University, China.**

Activities

2022.06-09	**Visiting graduate student, University of California Berkeley.** Visiting Simon's Institute, Mentor: Sandy Irani, on Hamiltonian Complexity. Hardness and algorithm for constructing ground states of certain local Hamiltonians.

Research Publications

❶ **Jiang**, J. & Wang, X. (2021). Lower bound the t-count via unitary stabilizer nullity. *arXiv preprint arXiv:2103.09999*. https://arxiv.org/pdf/2103.09999.pdf

❷ Jiang, J., Wang, K. & Wang, X. (2021). Physical implementability of linear maps and its application in error mitigation. *Quantum*, *5*, 600.

❸ **Jiang**, J., Sun, X., Teng, S.-H., Wu, B., Wu, K. & Zhang, J. (2019). Optimal space-depth trade-off of cnot circuits in quantum logic synthesis. *Accepted by ACM-SIAM Symposium on Discrete Algorithms (SODA20)*. https://arxiv.org/pdf/1907.05087.pdf

❹ **Jiang**, J., Sun, X., Sun, Y., Wu, K. & Xia, Z. (2019). Structured decomposition for reversible boolean functions. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*. https://arxiv.org/pdf/1810.04279.pdf

❺ **Jiang**, J., Zhang, J. & Sun, X. (2018). Quantum-to-quantum bernoulli factory problem. *Physical Review A*, *97*(3), 032303. https://arxiv.org/pdf/1712.09817.pdf

Skills

Misc.	I am learning classical guitar.