

# Yuchen Guo Ph.D. Candidate

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## Education

### Bachelor of Science : Tsinghua University | 2019-2023

- Major in Physics
- GPA: **3.94/4.0**
- Special scholarship for undergraduates in Tsinghua University in 2022 (Only 10 students in each year)
- Outstanding graduate of Tsinghua University and Outstanding graduate of Beijing
- Outstanding thesis of Tsinghua University and Outstanding thesis of Beijing

### Ph.D. Student : Tsinghua University | 2023-

- Interests in the interplay between quantum computation, quantum information, and topological quantum matter
- Publication in top journals including Physics Review Letters, PRX Quantum, npj Quantum Information

## Publications

- Quantum Error Mitigation via Matrix Product Operators, **Yuchen Guo** and Shuo Yang, **PRX Quantum** 3, 040313 (2022).
- Noise effects on purity and quantum entanglement in terms of physical implementability, **Yuchen Guo** and Shuo Yang, **npj Quantum Inf.** 9, 11 (2023).
- Construction of non-Hermitian parent Hamiltonian from matrix product states, Ruohan Shen<sup>#</sup>, **Yuchen Guo<sup>#</sup>** and Shuo Yang, **Phys. Rev. Lett.** 130, 220401 (2023).
- Composite quantum phases in non-Hermitian systems, Ruohan Shen<sup>#</sup>, **Yuchen Guo<sup>#</sup>** and Shuo Yang, **Phys. Rev. Res.** 5, 033181 (2023).
- Triggering boundary phase transitions through bulk measurements in two-dimensional cluster states, Yuchen Guo, Jian-Hao Zhang, Zhen Bi, and Shuo Yang, **Phys. Rev. Res.** 5, 043069 (2023).