

# Xing-Chen Guo

## Contact

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## Education

- *M. S. in Pure Mathematics (Advisor: Mao-Sheng Li)* 2023–present  
South China University of Technology, Guangzhou, China  
Research Theme: Quantum Information Theory
- *B. S. in Mathematics and Applied Mathematics* 2018–2022  
South China University of Technology, Guangzhou, China

## Publications

- *Application of Ramsey theory to localization of set of product states via multicopies*  
X. -C. Guo and M. -S. Li, *Eur. Phys. J. Plus* **138**, 50 (2023).
- *Measurement-device-independent entanglement witnesses with imprecise input states*  
X. -C. Guo and M. -S. Li, *Phys. Rev. A* **111**, 032426 (2025).

## Projects & Seminar

- *Local Indistinguishability Strength of Set of Orthogonal Quantum States* 2024-2027  
- Participant (PI: Mao-Sheng Li)  
- Funded by National Natural Science Foundation of China (General Program).  
- Progress on multi-copy local discrimination of orthogonal product states [*Eur. Phys. J. Plus* **138**, 50 (2023)].
- *Detection and Its Mathematical Theory of Quantum Entanglement and Coherence* 2024-2026  
- Participant (PI: Mao-Sheng Li)  
- Funded by Guangdong Natural Science Foundation (General Program).  
- Progress on entanglement detection under imprecise devices [*Phys. Rev. A* **111**, 032426 (2025)].
- **SCUT Quantum Information & Computing Seminar** 2024-present  
- Participant (Organizers: Zhu-Jun Zheng & Mao-Sheng Li)  
- Present frontier research papers and personal work.

## Teaching Assistant

- *Linear Algebra and Analytic Geometry* Fall 2024  
- Offered by Department of Mathematics, South China University of Technology  
- Duties: Answering questions and grading assignments.
- *Probability and Statistics* Spring 2025  
- Offered by Department of Mathematics, South China University of Technology  
- Duties: Answering questions and grading assignments.

## Awards

- *Outstanding Bachelor's Thesis Award* 2022  
Awarded by Department of Mathematics, South China University of Technology
- *Merit Student Award* 2019–2020  
Awarded by South China University of Technology