

Mo, Yin

Personal Information

- Name: Mo, Yin
- Date of Birth: 1994.2.23
- Gender: Male
- Native Place: Zhejiang
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Educational Experience

- The University of Hong Kong
 - 2016.9 -- 2021.7
 - Doctoral Degree, Department of Computer Science, Quantum Information and Computation Initiative
 - Supervisor: Giulio Chiribella
 - Research Areas:
 - Quantum Information Theory: quantum super-maps, indefinite causal network, quantum machine learning, quantum error correction
 - Group Theory, Semidefinite Programming, Numerical Calculation
- Tsinghua University
 - 2012.9 -- 2016.7
 - Bachelor of Science, Department of Physics, Fundamental Science in Physics and Mathematics
 - Selected Courses: Quantum Information, Advanced Quantum Information, Quantum Mechanics (1,2), Group Theory, Topology, Fundamentals of Computer Software Technology

Working Experience

- Institute for Quantum Computing at Baidu
 - 2021.9 -- 2023.4
 - Research Work: Quantum Applications in the NISQ era
 - The impact and solutions of the barren plateau effects
 - Quantum machine learning based on quantum neural networks
 - Platform Development:
 - Qulearn: Quantum Knowledge Base
 - Paddle Quantum: Design of Quantum Algorithms
 - Business and Conference Activities:
 - Quantum computing collaboration negotiations and presentations for enterprises
 - Co-organized multiple external events

- Hong Kong University of Science and Technology (Guangzhou)
 - 2023.8 --
 - Research Assistant in Quantum AI Research Lab, Thrust of Artificial Intelligence, Information Hub

Published Works

- Yang, Yuxiang, **Mo, Yin**, Joseph M. Renes, Giulio Chiribella, and Mischa P. Woods. "Optimal universal quantum error correction via bounded reference frames." *Physical Review Research*, 2022, 4(2): 023107.
- **Mo, Yin**, and Giulio Chiribella. "Quantum-enhanced learning of rotations about an unknown direction." *New Journal of Physics* 21.11 (2019): 113003.

Conference Presentations

- 2021.2, Munich, Germany (Online Conference): 24th Annual Conference on Quantum Information Processing
Poster presentation: "Covariant Quantum Error Correcting Codes via Reference Frames"
- 2020.11, Online Conference: Q-TURN 2020
Contributed talk: "Covariant Quantum Error Correcting Codes via Reference Frames"
- 2020.1, Shenzhen, China: 23rd Annual Conference on Quantum Information Processing
Poster presentation: "Indefinite causal order shows advantage in noisy unitary gate learning."
- 2018.9, Nagoya, Japan: 18th Asian Quantum Information Science Conference
Poster presentation: "Benchmark for the quantum-enhanced learning of a reversible dynamics."
- 2017.8, Toronto, Canada: 7th biennial Conference on Quantum Information and Quantum Control
Contributed talk: "Benchmark for the coherent control of reversible quantum dynamics."

Other Academic and Exchange Experiences

- 2019.11, Tokyo, Japan
Two-week exchange visit to the Mio Murao group at the Department of Physics, University of Tokyo
- 2019.7, United Kingdom
Attended a one-week seminar on quantum causality "QCS 2019" at the University of Oxford
- 2019.6, Spain and United Kingdom
Attended a two-week seminar "Quantum Information" in Benasque
- 2018.4, Spain
Attended a one-week seminar on quantum machine learning, "2nd Quantum UnConference", in Montserrat
One-week exchange visit to Antonio Acin's group at ICFO Center, Barcelona

Other Activities

- 2013.7, Volunteer teaching in Xinxiang, Henan
Participated in the "Book Spine" organization, volunteer teaching at Gushi Primary School in Xinxiang, Henan
- 2013-2015: Directed two short films for the student festival at the Department of Physics, Tsinghua University
- 2019, Designed the logo for the QICI Center, the University of Hong Kong