Dawei Zhong

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https://dawei-zh.github.io/ Google Scholar: Dawei Zhong

EDUCATION

Ph.D. in Physics, University of Southern California Aug. 2020 - Present

Advised by Todd A. Brun

M.S. in Quantum Information Science, University of Southern California Aug. 2021 - Dec. 2023

B.S. in Astronomy, Xiamen University Sep. 2014 - Jun. 2018

Thesis: XMM-Newton Survey of Local O VIII Absorber. Advisor: Taotao Fang

RESEARCH EXPERIENCE

Research Intern, Lawrence Berkeley National Laboratory May 2023 - Now

Research Assistant, University of Southern California Aug. 2020 - Now

Research Assistant, University of California, Irvine Aug. 2019 - Nov. 2019

Research Assistant, Xiamen University Feb. 2017 - Dec. 2019

PUBLICATIONS

[1] **D. Zhong**, M. Valli, and K. N. Abazajian. Near to long-term forecasts in x-ray and gamma-ray bands: Are we entering the era of dark matter astronomy? *Physical Review D* 102.8 (2020): 083008.

IN PREPARATION

[1] **D. Zhong**, T. A. Brun. Noise-Resilient Near-Term Algorithms with Quantum Error Detection Codes. *Draft Version*

PRESENTATION

[1] "Noise-resilient Quantum Simulation with Quantum Error Detection Code", contributed talk, the APS March Meeting, Mar. 4-8, 2024.

[2] "Noise-resilient Quantum Simulation with Quantum Error Detection Code", poster presentation, the 25th Annual SQuInT Workshop, Oct. 26-28, 2023.

[3] "Noise-resilient Quantum Simulation with Quantum Error Detection Code", poster presentation, the 1st Quantum Simulation Conference, Aug. 7-11, 2023.

[4] "Prospects for Dark Matter Astronomy: Galactic Dark Matter Sensitivities in the X-ray and Gamma-ray Bands", iPoster presentation, the 235th Meeting of AAS, Jan. 4-8, 2020.

SKILLS

Programming Languages: Python (NumPy, SciPy, Pandas, Matplotlib), Mathematica, C/C++

Quantum: IBM Qiskit (Certificate), Google Cirq, Mitiq, OpenFermion

Software and Operating System: Latex, Git, Linux (Ubuntu), Shell/Bash script

TEACHING EXPERIENCE

Teaching Assistant, Undergraduate Physics Lab Aug. 2021 - May 2023

Teaching Assistant, Applications of Quantum Computing Jan. 2023 - May 2023

Grading and guest lecture on "Introduction to Error Mitigation".