

WEI TANG

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EDUCATION

- Princeton University** *Sept 2018 - Present*
Ph.D. Candidate, Prof. Margaret Martonosi's group
Department of Computer Science
- Duke University** *Aug 2014 - May 2018*
B.Sc. in Computer Science
B.Sc. in Physics

RESEARCH EXPERIENCE

- Fast Quantum Simulator** Computer Science
Dec 2019 - Present
Wei Tang, Margaret Martonosi
- Improved runtime of Qiskit simulator by 2X (in progress)
- Cutting Quantum Circuits to Expand NISQ Hardware Capabilities** Computer Science
May 2019 - Nov 2019
Wei Tang, Teague Tomesh, Jeff Larson, Martin Suchara, Margaret Martonosi
- Expanded size of executable circuits on quantum hardware by up to 50%
 - Improved hardware reliability by up to 66X
 - Submitted, under review
- Single-Qubit Optimal Quantum Readout via Neural Networks** Computer Science
Oct 2018 - May 2019
Wei Tang, Zhaoqi Leng, Andrew Houck, Margaret Martonosi
- Employed Neural Architecture Search to mitigate readout error
- Laser Frequency Locking for Trapped Ions** Electrical and Computer Engineering
Jan 2017 - Dec 2017
Wei Tang, James Joseph, Jungsang Kim
- Designed, assembled and tested an auto-balance subtractor circuit
 - Locked laser frequency to be used in physical implementation of qubits via ion trapping

PUBLICATIONS

Wei Tang. "Search for Unknown Massive Bosons Decaying into $W\gamma$ and $Z\gamma$ Using the ATLAS Detector ." 2017 DPF Proceedings, Oct. 2017.

TALKS

- Single-Qubit Optimal Quantum Readout via Neural Networks** APS March Meeting
Mar 2020
Wei Tang, Zhaoqi Leng, Andrew Houck, Margaret Martonosi
- Developed a neural network based readout mitigation scheme.
 - Shortened readout time, improved readout fidelity
- Parallelizing Simulations of Large Quantum Circuits** SC19
Nov 2019
Michael A. Perlin, Teague Tomesh, Bradley Pearlman, Wei Tang, Yuri Alexeev, Martin Suchara
- Developed a parallel scheme of classical quantum circuit simulation.