Quantum Computing and Cryptography - 27: IBM Quantum Computers & Simulating Quantum Teleportation

Length	Micromodule
Collection	NSA NCCP
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Academic Levels	Undergraduate, Graduate
Topics	Quantum Computing
Link	https://clark.center/details/aparakh/2c367d0d-d65e-4869-a3b8-4642675aab71

Description

In this lesson students will apply quantum operations and use quantum entanglement to perform teleportation of arbitrary qubits. Students will experiment with IBM quantum computing interface and simulator and build complex quantum circuits.

Note: To get started with Jupyter notebooks please follow the userguide available at: https://sites.google.com/unomaha.edu/userguideqcl/

Outcomes

- Build complex quantum circuits and perform actual measurements.
- Experiment with IBM quantum computing interface and simulator.
- Apply quantum operations and use quantum entanglement to perform teleportation of arbitrary qubits.