

A Quantum Computing Primer with Sample Programming Exercises

This tutorial will provide an overview of the basic building blocks of quantum computing. Summary review of the postulates of quantum mechanics governing quantum computing, survey of the technical infrastructure for different types of quantum computing hardware platforms, introduction to basic quantum gate constructions including basic circuit design and exercises on quantum computing simulators.

Prerequisite: undergraduate level course in linear algebra

Recommended (but not required): one semester undergraduate level quantum mechanics course