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Introduction to Quantum Computing

Friday, 7 July 2023 10:45 (45 minutes)

Participants will learn about quantum phenomena, which govern nature. These quantum phenomena will be explained through photon's interference, which will be introduced by double-slit and double-beam splitter experiments. Next, classical computation will be compared to quantum computation. Quantum bit will be introduced. Participants will learn through an example of the quantum algorithm, presented in real quantum computer and in a quantum computer simulator.

objectives:

1. Learn about quantum nature of photons and possibility of application in quantum computing
2. Learn about the definition of quantum bit (qubit)
3. See a tutorial on quantum programming in quantum computer or quantum computer simulator

outcomes:

1. Understand the difference between classical and quantum computing
2. Understanding what is qubit
3. Obtain an idea of quantum computing algorithm

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