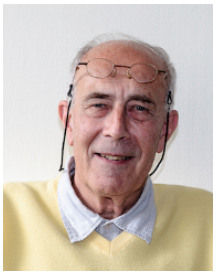

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Simulation of the time evolution for one-dimensional wave-functions with quantum computation

mardi 21 mars 2023 18:40 (20 minutes)

Quantum computation is a relatively new field that seeks to harness the power of quantum mechanics to perform calculations that would be impossible with classical computers. The Schrödinger equation lies at the heart of quantum physics. In this poster, we present how to address the one-dimensional time evolution of wave-functions, as governed by the Schrödinger equation, on quantum computation devices. The potential of quantum computation to achieve reliable simulation of the process is demonstrated. In the end, we highlight the challenges of implementing non-unitary boundary conditions.

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