

# Introduction to Quantum Simulation

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## **Abstract**

The simulation of quantum mechanical systems is one of the most promising applications of quantum computers, and is expected to yield advances in our understanding of strongly-correlated models in chemistry and physics. In this talk, I give an overview of different approaches to quantum simulation, focusing on algorithms for time evolution and for calculating ground states. In particular, I discuss how hybrid quantum-classical algorithms are suited for the present era of noisy intermediate-scale quantum devices.