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Nuclear Scattering with Quantum Computing[1]

ALESSANDRO ROGGERO, University of Washington

Recent years have seen an explosion of interest in Quantum Computing thanks to dramatic advances in the experimental realization of quantum devices. One of the major expected advantages of quantum computation with respect to it's classical counterpart is the ability to simulate the real-time dynamics of strongly coupled many-body systems. In this talk I will introduce the main ideas behind the study of nuclear scattering processes on quantum devices and discuss the similarities with classical computational schemes designed to compute response functions. I will also present some recent experimental result on current-generation quantum computers.

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