

*“Quantum Simulation of Gauge Theory”*

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Quantum computers hold great promise for enabling more efficient simulation of physical systems. Key to this is that a quantum computer can efficiently simulate the real-time evolution of a quantum system, whereas a classical simulation suffers from the exponentially (in volume) large Hilbert space. The implications of cheap real-time simulation for the study of field theories and nuclear physics are not yet well-explored. In this talk, we show how to construct a simulation of a nonabelian gauge field theory, emphasizing connections with existing classical simulations.

