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Quantum Hamiltonian Truncation

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We present ongoing work applying quantum computing techniques to investigate real-time evolution in the Schwinger model using the Hamiltonian Truncation approach - a general, numerical and fully nonperturbative method for solving Quantum Field Theories that is complementary to the lattice. We quantify and compare the quality of different approximations employed in the method, including consideration of Trotter and Hilbert space truncation errors, facilitating comparison with other approaches. Finally, we discuss the potential for exciting future applications.

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