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## Real-time dynamics without Hamiltonians

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Simulating real-time dynamics of large quantum systems is a notoriously difficult problem. Diagonalizing the Hamiltonian is exponentially expensive, while the configurations contribute a complex weight to the real-time path integral leading to a severe sign-problem. In this particular case, we consider a system of spins whose dynamics is driven by measurements of nearest neighbor spin pair. Remarkably, averaging over the measurement results lead to a sign-problem free real-time path integral which can be simulated with an efficient cluster algorithm.

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