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TO BE REPLACED - A new semiclassical picture of vacuum decay

In this talk I will introduce a new real-time description of vacuum decay in quantum field theories. Vacuum decay via bubble formation is simulated by generating realizations of vacuum fluctuations and evolving lattice simulations with the classical equations of motion. The decay rate obtained from an ensemble of simulations is in excellent agreement with existing semi-classical techniques. I will discuss possible future applications, including bubble correlation functions, decay of non-vacuum states, and possible laboratory experiments that could be used as quantum simulators of vacuum decay.

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