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Decoherence Effects on a Single Anharmonic Oscillator TY BEUS,

MANUEL BERRONDO, Brigham Young University — Anharmonic oscillators are used to convert coherent states to cat states which can be used as qubits, the building blocks for quantum computing. But there has been little study on the dynamics of anharmonic oscillators under the influence of quantum decoherence. In this presentation, we explore the effects of a single oscillator environment on the anharmonic oscillator and suggest a way to decrease decoherence.

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