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Friday–Saturday, October 19–20, 2018; University of Houston, Houston, Texas

[Session G01: Poster Session](#)

7:50 PM, Friday, October 19, 2018
TDECU Football Stadium Room: Club Suite

Chair: Donna Stokes, University of Houston

Abstract ID: BAPS.2018.TSF.G01.20

Abstract: G01.00020 : Quantum Dynamics of a Qubit Coupled to a Harmonic Oscillator*

 [Abstract](#) 

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We investigate the quantum dynamics of the forced harmonic oscillator and Jaynes-Cummings models. We find exact solutions for the time-evolution of the Jaynes-Cummings model using Wei-Norman factorization, and describe a technique that may be used to study time-dependent interaction strengths whose evolutions may not be analytically soluble.

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