Abstract Submitted for the 4CF17 Meeting of The American Physical Society

**Characterizing quantum properties of coupled harmonic oscillators with Husimi visualization**<sup>1</sup> TYLER THOMPSON, Otterbein University, JEAN-FRANCOIS VANHUELE, Brigham Young University — We examine the dynamics of systems of coupled quantum harmonic oscillators using Lie algebra techniques. The features of the system are then visualized using a time-dependent Husimi function. From these visualizations, we can classify the effects of different couplings and initial conditions on the dynamics of the system to facilitate quantum control.

<sup>1</sup>NSF Grant 1461219

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Date submitted: 21 Sep 2017

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