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Stephanie Taylor*, sltayl10@asu.edu, and **Bruno Welfert**. *Slow Passage Problem via Markov and Itô Processes*.

This presentation considers a spring-mass system with periodic harmonic forcing. The frequency of the forcing evolves stochastically. We consider the effect of the stochasticity in a slow linear ramp of the frequency on the delay or early occurrence of the resonance in the system. We also consider two implementations of the stochastic process using either a Markov or Itô process. This study examines the connection between Itô and Markov formulation and analyzes the differences in both the implementation and results of the different types of noises. (Received September 17, 2013)