1086-60-722 **G. Yin** and **Yousef A. Talafha*** (ee7542@wayne.edu), Department of Mathematics, Wayne State University, 656 W Kirby,1256 FAB, Detroit, MI 48202, and **F. Xi**. *Randomly Switching Stochastic Liénard Equations with Two-time Scales.*

This work is concerned with randomly switching stochastic Lienard equations. Our study focuses on complex systems with both continuous and discrete states. The continuous component is a solution of a stochastic Lienard equation and the discrete component is a Markov chain with a finite state space. Using a two-time-scale formulation, we show that under some conditions the stochastic Lienard equation converges weakly to a limit process using a martingale problem formulation. Finally, Simulation results are presented. (Received September 11, 2012)