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Gangaram S Ladde and **Sivapragasam Sathananthan*** (satha@coe.tsuniv.edu), Campus Box 139, Tennessee State University, Nashville, TN 37209. *Stability and Convergence results of delay iterative processes under stochastic switching*. Preliminary report.

In this work, stability and convergence results of delay iterative processes under stochastic switching of regimes is investigated. The regime switching is described by a finite state Markov chain. Under algebraic conditions of rate functions, a time delay, and an intensity matrix associated with the Markov chain, convergence and stability results are obtained. The results are shown to be robust to parametric changes in the system. (Received December 22, 2006)