

1106-92-1840

Gangaram S Ladde* (gladde@usf.edu), Department of Mathematics and Statistics, University of South Florida, 4202 East Fowler Avenue, Tampa, FL 33620-5700. *A THRESHOLD NETWORK DYNAMIC AND APPLICATIONS*. Preliminary report.

In this work, we focus on the threshold dynamic networks. By developing discrete iterative inequalities, energy/Lyapunov function approach, comparison results for discrete iterative process under environmental and Markovian perturbation are presented. By using the comparison results, the qualitative properties of both stochastic and deterministic automata networks are analyzed. Several applications are given to illustrate the usefulness of the results. (Received September 15, 2014)