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Gangaram S. Ladde* (gladde@usf.edu), Department of Mathematics and Statistics, University of South Florida, 4202 East Fowler Avenue, CMC 342, Tampa, FL 33620-5700. *Comparison Theorems for Complex Interconnected Large-scale Stochastic Dynamic Systems*. Preliminary report.

In this work, employing Lyapunov like function, we develop comparison results for complex interconnected large-scale stochastic dynamic systems. The developed results provide upper and lower bounds for solution processes. Moreover, the presented study provides a robust and easily verifiable sufficient conditions in terms of system parameters. (Received September 26, 2017)