

Meeting: 1003, Atlanta, Georgia, SS 12A, AMS-SIAM Special Session on Stochastic, Large-Scale, and Hybrid Systems, I

1003-34-1240 **Donald W Fausett*** (dfausett@GeorgiaSouthern.edu), Georgia Southern University,
Department of Mathematical Sciences, PO Box 8093, Statesboro, GA 30460, and **Kanuri N**
Murty. *Controllability, Observability, and Realizability of Large-Scale Differential Systems.*

This talk presents several basic results concerning the controllability, observability and realizability criteria for a first-order Kronecker Product system. For nonlinear systems, the controllability problem is transformed to a fixed point problem of a nonlinear operator in a function space. Several interesting examples will be presented that illustrate the relevance of these investigations. (Received October 04, 2004)