1079-60-256 **Daniel Siu*** (dsiu@mail.usf.edu) and **G S Ladde** (gladde@usf.edu). *Stochastic Hybrid Dynamic Models: Parameter Estimation.* Preliminary report.

Two types of real-valued stochastic hybrid systems are studied: the first-order linear homogeneous system of Ito-Doob type stochastic differential equations with jumps, and an Ornstein-Uhlenbeck system with jumps. A few estimation methods for the parameters of the discrete and continuous dynamics for the stochastic hybrid systems will be discussed. Simulated numerical examples will be given to illustrate the parameter estimation algorithms. (Received January 16, 2012)