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Ionut Florescu* (ifloresc@stevens.edu), Castle Point on the Hudson, Department of Mathematical Sciences, Stevens Institute of Technology, Hoboken, NJ 07030. *Stochastic volatility models: Parameter estimation for a reduced model*. Preliminary report.

In this talk I will present a filtering method suitable for parameter estimation in a stochastic model with a hidden factor. The input consists in discrete time observations of the main process. The methodology is quite general but in this talk I will focus on the situation when the hidden factor is a continuous time Markov chain with an unknown state space. I will exemplify the procedure using financial data from March 10 - March 18, 2008 as well as temperature data collected within the state of New York (East Plateau and Central Park). (Received August 03, 2009)