

Graduate Seminar in Statistics

Mr. Nan Zheng

Monday, January 12, 2015
1:00pm, HH 3017

Inference in Stochastic Volatility Models for Gaussian and t Data

Abstract:

Two competing analytical approaches, namely, the generalized method of moments (GMM) and quasi-maximum likelihood (QML) are widely used in statistics and econometrics literature for inferences in stochastic volatility models (SVMs). In this talk, we first extend Tagore's MM and AGQL approaches (Tagore 2010) to the estimation of all parameters of the SV model including the so-called intercept parameter γ_0 . Secondly, we modify the existing QML approach. Then, we consider a t-distribution based SV model. Simulation studies are conducted to examine the relative performance of the estimation approaches. The approaches are then applied to analyze a real data for illustration.