

Mathias Vetter-Statistical inference on the volatility process in continuous time models

In this talk we are concerned with non-parametric inference on the volatility process in stochastic volatility models. Particular interest is turned towards volatility of volatility, for which based on increments of spot volatility estimators an empirical version of integrated volatility of volatility is obtained. Central limit theorems with the optimal rate $n^{-1/4}$ can be proven as well. These CLTs can for example be used to decide whether a certain stochastic volatility model is appropriate or not.