

Abstract: "Spectral estimation of
volatility coefficient of scalar diffusion."

We consider one dimensional diffusion process observed at regularly sampled time points, with fixed time between observations. We give example of optimal estimator of diffusion coefficients, based on spectral properties of the transition semi group. We investigate the behavior of this estimator when time between observations decreases to zero and discuss its effectiveness in high frequency regime. Joint work with M. Reiß.