

Inference for Semimartingales Observed at High Frequency

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This talk presents limit theorems for various characteristics of semimartingales, when the underlying process is observed at high frequency. We discuss classical results in the case where the semimartingale can be observed without further restrictions, and show later on that pre-averaging is a powerful technique to obtain similar results in the case, where the observations are disturbed by additive noise. In particular, we have consistent estimates for important characteristics of general semimartingales like the quadratic variation even in the noisy setting and are able to prove the associated (stable) central limit theorems as well.