Assessment of Uncertainty in High Frequency Data: The Observed Asymptotic Variance

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A main problem in the analysis of financial high frequency data is the setting of standard errors. This is because the finding of estimators of asymptotic variance (AVAR) is often harder than finding point estimators. This paper proposes an alternative and general solution to this problem, which we call Observed Asymptotic Variance. It is a general nonparametric method. The Observed AVAR work well in the presence of microstructure noise, and when observation times are irregular.

**Keywords:** high frequency data; irregular time; microstructure; observed information.