High frequency data in statistics

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Abstract

In this talk we present a short survey of recent developments in the statistical analysis of high frequency data. This type of observations appears in various applied fields such as economics, stereology, biology or physics. The notion "high frequency" refers to the fact that the time step between two adjacent observations converges to zero. We highlight some statistical problems that are particular related to high frequency data. We demonstrate various asymptotic results in the framework of diffusion and fractional type models.