

Maximum Likelihood Estimator for Discretely Observed CIR Model with Small α -Stable Noises

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Abstract: The maximum likelihood estimation of the drift and volatility coefficient parameters in the CIR type model driven by α -stable noises is studied when the dispersion parameter $\varepsilon \rightarrow 0$ and the discrete observations frequency $n \rightarrow \infty$ simultaneously. The joint density of the sample is approximated by using the stable distributions.