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KL-ONE: Eine Einfährung

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Kurzfassung

It is commonly accepted that some financial data may exhibit long-range dependence, while other financial data exhibit intermediate-range dependence or short-range dependence. These behaviours may be fitted to a continuous-time fractional stochastic model. The estimation procedure proposed in this paper is based on a continuous-time version of the Gauss–Whittle objective function to find the parameter estimates that minimize the discrepancy between the spectral density and the data periodogram. As a special case, the proposed estimation procedure is applied to a class of fractional stochastic volatility models to estimate the drift, standard deviation and memory parameters of the volatility process under consideration. As an application, the volatility of the Dow Jones, S&P 500, CAC 40, DAX 30, FTSE 100 and NIKKEI 225 is estimated.