APPLICATION OF MELLIN TRANSFORMS IN DETERMINATION THE PROBABILITY DISTRIBUTION OF THE STOCHASTIC VOLATILITY MODELS

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In this paper, an application of the Stochastic Mellin Transforms (SMTs) in determination of the probability distribution functions (PDFs) of the Stochastic Volatility (SV) models is proposed. In that aim, three basic SV time series with Gaussian innovations have been considered, and their PDFs were obtained by using the inverse SMT formula.

Gaussian probability distribution

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