On the Infinite Variance Option Price Models

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Abstract

Infinite variance distributions are among the competing models used to explain the non-normality of stock price changes (Mandelbrot, 1963; Fama, 1965; Mandelbrot and Taylor, 1967; Rachev and Samorodnitsky, 1993). We use a recursion technique to investigate and quantify various characteristics of the asymptotic option price formula, in infinite variance setting. This shows that such formulae, and even their approximations, may be difficult to apply in practice.

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