Beyond the Black-Scholes model : Focusing on the dynamics of jumps

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ABSTRACT

There are various drawbacks of the Black-Scholes model such as heavier tails, negative skewnesses, implied volatilities, and so on, which are observed in the financial market. In order to conquer these weaknesses, we consider a number of stochastic processes based on the dynamics of jumps. Then several experiments are carried out to compute financial derivatives numerically.