ON THE CONFIDENCE INTERVAL OF BLACK-SCHOLES MODEL

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ABSTRACT

This paper derives expressions for the moments of the distribution of the option payoff in a Black Scholes economy. These results are of intertest from a purely statistical viewpoint. They may also be of interest given the current importance of value at risk calculations. We also derive formulae for the moments of barrier options and provide numerical examples.

Key words: Black-Scholes model, European call option, Black-Scholes formula, Barrier option, Confidence interval, Risk neutral measure.

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