## 1086-60-805

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In this work, we assume that the underlying asset price follows Heston's stochastic volatility model, and derive explicit solutions for the prices of the geometric Asian options with fixed and floating strikes. Our approach has to deal with derivation of the generalized joint Fourier transform of a square root process and of three different weighted integrals of the square root process with constant, linear and quadratic weights. We also provide numerical implementation results of the complicated expressions and present computational stability and efficiency of our method. (Received September 13, 2012)