

Pricing Options with VG Model Using FFT

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We discuss various analytic and numerical methods that have been used to get option prices within a framework of VG model. We show that some popular methods, for instance, Carr-Madan's FFT method could blow up for certain values of the model parameters even for European vanilla option. Alternative methods—one originally proposed by Lewis, and Heston-wise method are considered that seem to work fine for any value of the VG parameters. Test examples are given to demonstrate efficiency of these methods. Convergency of all methods is also discussed.