Option Pricing with Jump Processes: An application to National Stock Exchange (NSE) Index (NIFTY)

Sujoy Bhattacharya (Indian Institute of Technology Kharagpur, India)

Option Pricing for Indian Derivative Market has been attempted by many researchers . However using Jump process to model the derivative prices and out of Black-Scholes Model have been limited. This study models NSE Index (NIFTY) Derivative prices using Levy Model and Sato Process. The results are compared with Black-Scholes model implied results for different Volatility Periods.

Key Words: Levy Model, Sato Model, NIFTY