

1120-60-79

Aziz Issaka*, Department of Mathematics, NDSU Dept # 2750, Minard Hall 406, Fargo, ND 58108-6050, and **Indranil SenGupta**. *Feynman path integrals for transition probability densities of some financial markets.*

In this paper we implement the method of Feynman path integral for the analysis of option pricing for certain Lévy process driven financial markets. For such markets, we find closed form solutions of transition probability density functions of option pricing in terms of various special functions. Asymptotic analysis of transition probability density functions is provided. We also find expressions for transition probability density functions in terms of various special functions for certain Lévy process driven market where the interest rate is stochastic. (Received February 12, 2016)