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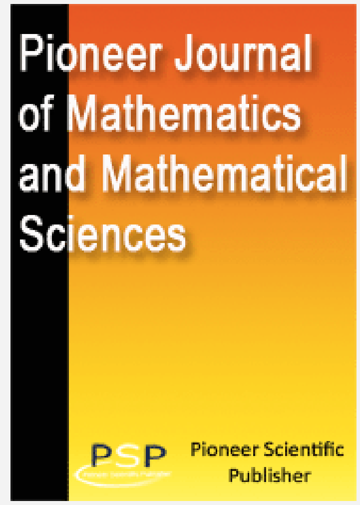

THE OPTION PRICING MODELS WITH STOCHASTIC INTEREST RATE

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Abstract

This paper assuming jump process is more common then Poisson process a kind of special renewal process. We give the European options pricing equation in a stochastic interest rate for jump-diffusion models. The formula of European options is deduced under the risk-neutral hypothesis. Hence the results in R. C. Merton are generalized.

Keywords and phrases: jump-diffusion process, renewal process, stochastic interest rate, Poisson process, options pricing.