

# Premia 14

## Approximation Methods

Topics:

Approximation for American Options

Laplace Transform for Asian and Double Barrier Options

Approximation for Asian Options I

Approximation for Asian Options II

Laplace and Fourier Transform for Asian Option

Analytical Formula for Discrete Barrier Options

Fourier Transform for Levy Models

Laplace Transform for Parisian Options

Laplace Transform for Double Barrier Parisian Options

IAC Method for Tempered Stable Model

Approximate prices of basket and Asian options

Approximation formula in the Kou model

Numerical Quadrature methods for pricing Discrete Monitoring Asian options

Fast Wiener-Hopf factorization method for option pricing

Efficient pricing options under regime switching

A generalization of the Hull and White formula

Pricing American Options under Stochastic Volatility and Stochastic Interest Rates

Option Pricing Using Fourier Transforms

A Stochastic Volatility Alternative to SABR

Time Dependent Heston Model

Pricing options under stochastic volatility : a power series approach

Fourier Cosine Option pricing

Pricing European option under Heston-CIR model with Fourier Cosine Method

Backward Convolution Algorithm for Discretely Sampled Asian Options

Exponential Moments of the Discrete Maximum of a Lévy process

Fourier space time-stepping for option pricing with Levy models

Saddlepoint methods for option pricing

Efficient Wiener-Hopf approach for option pricing in stochastic volatility models

Pricing Fixed and Floating Asian Options in a Discretely Monitored Framework

Fourier-Cosine Method for Pricing Bermudan Options and American Options in Heston Model

Static Hedging of Standard Options

Efficient pricing lookback options under Lévy processes

Computing VaR and AVar in Infinitely Divisible Distributions

Analytical formulas for local volatility model with stochastic rates

Forward Variance Dynamics: Bergomi's model revisited

Option pricing for a lognormal stochastic volatility model

Stochastic expansion for the pricing of call options with discrete dividends