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3.3.2 The Normal Inverse Gaussian Model 3.4 Other Models; 3.4.1 Exponential Levy Models with Stochastic Volatility; 3.4.2 Stochastic Clocks; 3.5 Martingale Correction; 3.6 Summary and Conclusions; 4 Multi-Dimensional Models; 4.1 Introduction and Objectives; 4.2 Multi-Dimensional Diffusions; 4.2.1 GBM Baskets; 4.2.2 Libor Market Models; 4.3 Multi-Dimensional Heston and SABR Models; 4.3.1 Stochastic Volatility Models; 4.4 Parameter Averaging; 4.4.1 Applications to CMS Spread Options; 4.5 Markovian Projection; 4.5.1 Baskets with Local Volatility
4.5.2 Markovian Projection on Local Volatility and Heston Models 4.5.3 Markovian Projection onto DD SABR Models; 4.6 Copulae; 4.6.1 Measures of Concordance and Dependency; 4.6.2 Examples; 4.6.3 Elliptical Copulae; 4.6.4 Archimedean Copulae; 4.6.5 Building New Copulae from Given Copulae; 4.6.6 Asymmetric Copulae; 4.6.7 Applying Copulae to Option Pricing; 4.6.8 Applying Copulae to Asset Allocation; 4.7 Multi-Dimensional Variance Gamma Processes; 4.8 Summary and Conclusions; PART II NUMERICAL METHODS AND RECIPES; 5 Option Pricing by Transform Techniques and Direct Integration
5.1 Introduction and Objectives

Sommario/riassunto

Financial Modelling - Theory, Implementation and Practice is a unique combination of quantitative techniques, the application to financial problems and programming using Matlab. The book enables the reader to model, design and implement a wide range of financial models for derivatives pricing and asset allocation, providing practitioners with complete financial modelling workflow, from model choice, deriving prices and Greeks using (semi-) analytic and simulation techniques, and calibration even for exotic options. The book is split into three parts. The first part considers