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5.3.2 Semi-static hedging of barrier options5.3.3 Self-dual exponential Levy processes; 5.3.4 Self-dual stochastic volatility models; 5.4 Notes and further reading; 6. Mean-Variance Hedging; 6.1 Concept of mean-variance hedging; 6.2 Valuation and hedging by the Laplace method; 6.2.1 Bilateral Laplace transforms; 6.2.2 Valuation and hedging using Laplace transforms; 6.3 Valuation and hedging via integro-differential equations; 6.3.1 Feynman-Kac formula for the value function; 6.3.2 Computation of the optimal hedging strategy; 6.4 Mean-variance hedging of defaultable assets
6.4.1 Intensity-based approach6.4.2 Martingale representation; 6.4.3 Hedging of insurance claims with longevity bonds; 6.5 Quadratic risk-minimisation for payment streams; 6.6 Notes and further reading; 7. Entropic Valuation and Hedging; 7.1 Exponential utility indiffence pricing; 7.2 The minimal entropy martingale measure; 7.3 Duality results; 7.4 Properties of the utility indifference price; 7.5 Entropic hedging; 7.6 Notes and further reading; 8. Hedging Constraints; 8.1 Framework and preliminaries; 8.2 Dynamic utility indi erence pricing; 8.3 Martingale optimality principle
8.4 Utility indifference hedging and pricing using BSDEs

Sommario/riassunto

Valuation and hedging of financial derivatives are intrinsically linked concepts. Choosing appropriate hedging techniques depends on both the type of derivative and assumptions placed on the underlying stochastic process. This volume provides a systematic treatment of hedging in incomplete markets. Mean-variance hedging under the risk-neutral measure is applied in the framework of exponential Levy processes and for derivatives written on defaultable assets. It is discussed how to complete markets based upon stochastic volatility models via trading in both stocks and vanilla options. Exponentia