Abstract

This thesis studies the problem of hedging a contingent claim in an incomplete market. To approach this problem we use the method of quadratic hedging. The locally risk-minimization and the mean-variance hedging are the two main quadratic hedging approaches which are discussed in this context. We begin by giving an overview of results and developments in these two areas. We then apply the theory to two affine stochastic volatility models, namely the Heston model and the BNS model, and we obtain semiexplicit formulas for the optimal hedging strategies.