Minisymposium 3 - Stochastic Processes with Jumps: Theory and applications

Mean-variance hedging for jump processes

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A key problem in financial mathematics is how to hedge a contingent claim by dynamic trading in the underlying. Since models based on jump processes are incomplete, perfect replication is typically impossible. As a natural alternative one may seek to minimize the expected squared hedging error. In this talk we discuss the general structure of optimal hedging strategies as well as concrete results in specific models with stochastic volatility and jumps.