Minisymposium 14 - Stochastische Marktmodelle

Pricing and Hedging in Illiquid Financial Markets

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Ever since the seminal work of Black, Scholes, and Merton, typical models studied in Mathematical Finance specify price dynamics exogenously via some more or less explicit semimartingale dynamics. This is contrast to the basic economic paradigm that prices ought to be determined by demand and supply. We propose a new model which bridges the gap (or at least tries to) between these two approaches by studying the dynamics of utility indifference prices. For exponential utility, the resulting nonlinear wealth dynamics allow for explicit solutions to the classical problems of pricing, hedging, and utility maximization in complete and incomplete financial markets.