



Minisymposium 14 - Stochastische Marktmodelle

Stocks paying discrete dividends: modelling, option pricing and optimal portfolios

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Usually any dividends on stocks are modelled as continuously paid streams, but in reality dividends are always paid discretely, often after some announcement of the amount of the dividend. It is not entirely clear how such discrete dividends are to be handled; simple perturbations of the Black-Scholes model often fall into contradictions. The approach presented here is to recognise the stock price as the net present value of all future dividends, and to model the (discrete) dividend process directly. The stock price process is then deduced, and various option-pricing formulae derived. Further, the standard portfolio problem will be solved.