1015-91-208 **Klaus R Schenk-Hoppé***, Centenary Chair in Financial Mathematics, Leeds University Business School, The University of Leeds, LS9 2JT Leeds, England. *Evolutionary Finance.*

Evolutionary finance explores a Darwinian perspective in the study of the dynamics of financial markets. It views the trading of assets as an ongoing competition for wealth. Investors interact through the price system which (together with random asset payoffs) induces a stochastic evolution of the wealth distribution across individuals. We model the wealth dynamics in a financial market with endogenous prices as a random dynamical system. Our analysis relies on local and global methods from random dynamical systems theory.

This talk introduces discrete- and continuous-time evolutionary finance models and presents results on the long-run behavior of the wealth dynamics. I will discuss why seemingly rational strategies can do very poorly against seemingly irrational strategies, the interaction of strategies can lead to stochastic time series of asset prices that do not converge, and evolutionary stable stock markets are those in which assets are evaluated by expected relative dividends. (Received February 06, 2006)