Title: On Financial Weapons of Mass destruction

Abstract:
We contrast Arbitrage Pricing Theory (APT), the theoretical basis for the development of financial instruments, with a dynamical picture of an interacting market, in a simple setting. The proliferation of financial instruments apparently provides more means for risk diversification, making the market more efficient and complete. In the simple market of interacting traders discussed here, the proliferation of financial instruments erodes systemic stability and it drives the market to a critical state characterized by large susceptibility, strong fluctuations and enhanced correlations among risks. This suggests that the hypothesis of APT may not be compatible with a stable market dynamics. In this perspective, market stability acquires the properties of a common good, which suggests that appropriate measures should be introduced in derivative markets, to preserve stability.