数学与系统科学研究院学术报告

报告题目：Mean field Consumption-Accumulation Games

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时间地点：11:00-12:00AM, September 27, 2013, Room 712, Siyuan Building

摘要：

This work presents a neoclassical stochastic growth model with (i) a large number of agents and (ii) a congestion effect in the production dynamics due to the production activity of all agents. We formulate a mean field game with finite horizon and HARA utility. Decentralized strategies are constructed by consistent mean field approximations. We also discuss the long term behavior of the game which in certain situations gives rise to significant challenges: the mean field generated by self-optimizing individuals exhibits oscillatory or even chaotic behavior. This raises the question whether it is possible at all in such cases to forecast the mean field behavior for the purpose of game theoretic optimization.