國立中山大學應用數學系

學術演講

講　者：孫立憲 教授
　　　　國立中央大學統計研究所
講　題：Systemic risk and interbank lending
時　間：2017/05/11（星期四）14:10 ~ 15:00 pm
地　點：理學院四樓理 SC 4009-1 室
茶　會：15:00 於理 SC 4010 室 (系辦公室)

Abstract

We propose a simple model of the banking system incorporating a game feature where the evolution of monetary reserve is modeled as a system of coupled Feller diffusions. The optimization subject to the quadratic cost reflects the desire of each bank to borrow from or lend to a central bank through manipulating its lending preference and the intention of each bank to deposit in the central bank in order to control the volatility for cost minimization. We observe that the Markov Nash equilibrium generated by Cox-Ingersoll-Ross type processes creates liquidity and deposit rate. The adding liquidity leads to a flocking effect implying stability or systemic risk depending on the level of the growth rate but the deposit rate diminishes the growth of the total monetary reserve causing a large number of bank defaults. The central bank acts as a central deposit corporation. In addition, the corresponding Mean Field Game in the case of the number of banks N large is also discussed.

中山大學應用數學系
敬 請 公 告！ 歡 迎 參 加！
應用數學系：http://math.nsysu.edu.tw
校園地圖：http://math.nsysu.edu.tw/ezfiles/87/1087/img/779/NSYSUMAPmath990705.jpg
交通資訊：http://www.nsysu.edu.tw/files/90-1000-7.php?Lang=zh-tw

應用數學系　　　校園地圖　　　交通資訊