明治大学グローバルCOEプログラム【現象数理学の形成と発展】

# 第32回 MEE seminar

## Mathematical Ecology & Evolution

2012年2月23日(木) 16：30〜17：30
明治大学生田キャンパス第二校舎A館: A207
February 23, 2012. 16:30〜17:30 Meiji Univ. Ikuta campus A207

小田急小田原線 「生田駅」から徒歩10分
又は「向ケ丘遊園」駅北口から「明治大学正門前」行きバスで15分終点下車
詳しくは、**http://www.meiji.ac.jp/koho/campus_guide/** をご覧下さい

## Spatial dominance in symmetric 3 × 3 games

Hideo Deguchi (Toyama University)

**Abstract:** The concept of Nash equilibrium has played a central role as a solution concept in game theory. However, when a game has multiple Nash equilibria, the players face a problem which equilibrium they should play. To deal with this problem, Hofbauer (1999) introduced the concept of spatial dominance using the stability of a constant stationary solution, which corresponds to a Nash equilibrium, of a reaction-diffusion system. That a Nash equilibrium is spatially dominant means that if it prevails initially on a large enough finite part of the space, then it eventually takes over the whole space. At most one equilibrium can be spatially dominant. Hence, if existence can be shown, spatial dominance can be used as an equilibrium selection criterion. He proved that the spatial dominance concept agrees with the risk-dominance concept by Harsanyi and Selten (1988) for 2 × 2 games with two strict equilibria. In this talk we consider symmetric 3 × 3 games. We first show the existence of solutions of the reaction-diffusion system. We then report on spatial dominance selection results.
(This talk is based on joint work with Josef Hofbauer.)

参加自由です。皆様のお越しをお待ちしております。

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