

# 第22回 MEE SEMINAR

## MATHEMATICAL ECOLOGY & EVOLUTION

**2010年6月1日(火) 14:40~16:10**  
**明治大学生田キャンパス第二校舎A館：A207**

小田急小田原線 「生田駅」から徒歩10分  
又は「向ヶ丘遊園」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/](http://www.meiji.ac.jp/koho/campus_guide/) をご覧下さい

**June 1, 2010. 14:40~16:10 Meiji Univ. Ikuta campus A207**

# The Optimal Control of Growth Process under Environmental Stochasticity

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### Abstract:

Organisms resist various risks (such as natural enemy, diseases, competition with other species, the variance of growth rate, etc) in terms of various manners of life history strategies. Above all, it is obtained with mathematical analysis (Tuljapurker, 1990) that variance of growth rate reduces fitness. In fact, it is known that sensitivity of the fitness to each parameter has negative correlation with its variance in some species, by using the transition matrix model (Pfister, 1998). However, there are a few papers that the models include the control of the variance in the life-history strategy. Therefore, we directly derived a theoretical model, which is taken into account the control of the variance in their growth process, from typical demographic models (such as the transition matrix model and integration projection model (Zuidema, et al., 2010)). Then, we present our analysis on the optimal control of variance in their growth process, based on our model.

**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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