



DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

40th Anniversary Seminar Series

Professor Xianping GUO

*The School of Mathematics and Computational Science
Zhongshan University
Guangzhou, PRC*

will give a talk

entitled

**ZERO-SUM GAMES FOR CONTINUOUS-TIME JUMP
MARKOV PROCESSES WITH DISCOUNTED PAYOFFS**

Abstract

Starting from simple description about existing works on stochastic games, we roughly classify them into three groups according to their state processes: (1) discrete-time stochastic games, (2) stochastic differential games, and (3) semi-Markov games. Then, we introduce another class of stochastic games, namely, continuous-time Markov games by using an application example. In this talk, we first show the basic theory for the continuous-time Markov games, and then present some optimality results and some interesting "martingale characterization" for two-person zero-sum Markov games with a discounted payoff criterion. Finally, we talk about further topics about such continuous-time Markov games.

on

Tuesday, April 15, 2008

2:00 p.m. – 3:00 p.m.

at

**Room 524, Meng Wah Complex
(behind the Chong Yuet Ming Amenities Centre)**

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