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DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Dr. XU Zuoquan

Mathematical Institute
University of Oxford
U.K.

will give a talk

entitled

OPTIMAL STOPPING WITH PROSPECT PREFERENCE

Abstract

Prospect theory, featuring S-shaped utility (value) function and probability distortion, proposed in Kahneman and Tversky (1979) has been widely accepted as a successful supplement and extension of traditional expected utility theory. In this talk, we study general optimal stopping with prospect preference problems. All the three key features in prospect theory are considered in our problems. In particular, probability distortion is considered in such problems for the first time. Probability distortion has destroyed the time-consistency structure of the problems which leads to the failure of using dynamic programming and stochastic control approach to solve the problems. With the help of distribution/quantile formulation and Skorokhod embedding theorem, we propose a three-step procedure to solve the problems. The optimal stopping times turn out to be highly depending on the shapes of the utility function and probability distortion function. In particular, we have re-found and generalized the results that have been obtained without considering probability distortion in the literature. The main contribution of this talk is tackling the time-inconsistency arising from the probability distortion in the optimal stopping problems.

on

Thursday, May 27 2010

9:15 a.m. – 10:15 a.m.

at

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

Visitors Please Note that the University has limited parking space. If you are driving please call the Department at 2859 2466 for parking arrangement.

All interested are welcome