ÇANKAYA UNIVERSITY
FACULTY OF ARTS AND SCIENCES
DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCES

SEMINAR

Optimal control of stochastic dynamics under regime switches, paradigm shifts and with delay - applications in finance, economics and science

SPEAKER : **Prof. Dr. Gerhard Wilhelm Weber**

DATE : **November 20, 2015**

TIME : **14:30**

PLACE : **Çankaya University (Central Campus), R213**

Abstract

Abstract In this presentation, we contribute to modern OR by hybrid, e.g., mixed continuous-discrete dynamics of stochastic differential equations with jumps and to its optimal control. These hybrid systems allow the representation of random regime switches or paradigm shifts, and are of growing importance in economics, finance, science and engineering. We introduce some new approaches to this area of stochastic optimal control: one is based on the finding of optimality conditions and closed-form solutions. We further discuss aspects of differences in information, given by delay or insider information. The presentation ends with a conclusion and an outlook to future studies.

All interested are cordially invited.

ADDRESS : **Eskişehir Yolu 29.km, 06810, Etimesgut/ANKARA**