Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

FAKULTÄT
FÜR MATHEMATIK, INFORMATIK
UND NATURWISSENSCHAFTEN

Kolloquium über Mathematische Statistik und Stochastische Prozesse

Dr. Kristoffer Lindensjö
Stockholms Universitet, Sweden

10.01.2017, 16:15 Uhr, Hörsaal 5

Time-inconsistent stochastic control: solving the extended HJB system is a necessary condition for regular equilibria

Abstract:
Time-inconsistent stochastic control is a game-theoretic generalization of standard stochastic control. An important result of standard stochastic control is the characterization of the optimal value function as the solution to the corresponding Hamilton-Jacobi-Bellman equation. It turns out that time-inconsistent stochastic control offers a similar possibility: Björk, Khapko and Murgoci (2016) introduce a system of PDEs, the extended HJB system, and prove a verification theorem saying that if the extended HJB system has a solution then it is an equilibrium of a corresponding time-inconsistent stochastic control problem. In the present paper we show that a regular equilibrium is necessarily a solution to the extended HJB system.

Dr. Kristoffer Lindensjö
Stockholms Universitet, Sweden
http://www.su.se/profiles/krli3389-1.252922

Kontakt:
Prof. Dr. Sören Christensen (http://www.math.uni-hamburg.de/home/christensen/)
Universität Hamburg