February 15, 2013
KAP 414
3:30 PM – 4:30 PM

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"Stochastic Optimal control with Time-Inconsistency"

Abstract:

Classical stochastic optimal control problems are time-consistent, by which it means that an optimal control for a given initial pair will stay optimal along the optimal trajectory. However, in many situations, such kind of time-consistency could fail; in another word, the restriction of an optimal control on a later time-interval might be not optimal anymore. Two typical situations are the appearance of non-exponential discounting in the cost functional and (nonlinear) appearance of conditional expectations in the state equation/cost functional. In this talk, we will present some recent results on time-consistent solutions to time-inconsistent problems.