February 25, 2013
KAP 414
2:15 PM- 3:15 PM

Prof. Bruno Bouchard

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"Target games with expected loss"

Abstract: We study a stochastic game where one player tries to find a strategy such that the state process reaches a target of controlled-loss-type, no matter which action is chosen by the other player. We provide, in a general setup, a relaxed geometric dynamic programming for this problem and derive, for the case of a controlled SDE, the corresponding dynamic programming equation in the sense of viscosity solutions. As an example, we consider a problem of partial hedging under Knightian uncertainty.