April 2nd, 2018
KAP 414
2:00 P.M. – 3:00 P.M.

Professor Boualem Djehiche

(University of Stockholm, Sweden)

"On a Mean-Field Stochastic Target Problem"

Abstract: We consider the stochastic target problem of finding the collection of initial laws of a mean-field stochastic differential equation such that we can control its evolution to ensure that it reaches a prescribed set of terminal probability distributions, at a fixed time horizon. We establish a version of the geometric dynamic programming principle for the associated reachability sets and the corresponding value function which provides a characterization of the initial masses that can be almost-surely transported towards a given target, along the paths of a stochastic differential equation.