Wednesday November 5, 2008, 12:30pm in BCF Classroom

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Title: Mean field games theory: the stochastic control framework

Abstract: Mean Field Games Theory (MFG) aims to bring a comprehensive mathematical framework, a few new concepts and a new style of models, to the study of interactive decision process for some very large class of agents. We will introduce some features of the mathematical framework of this new theory : the systems of coupled forward/backward ODEs or PDEs, the variationnal principles and new numerical methods. Together with these new systems and results we will show a large diversity of new open questions of stochastic control.