

Prof. Bernard Dacorogna - Section Mathématiques

SEMINAIRE D'ANALYSE

> VENDREDI 30 novembre 2012 à 15h15 - salle MA A330

Monsieur **DIOGO GOMES** (Universidade Técnica de Lisboa, Portugal) donnera une conférence sur le thème:

« Variational Mean-field games »

Mean Field Games is a new class of problems introduced by Lions and Lasry (and independently, around the same time, by Caines and his co-workers in the engineering community) which models the the dynamics of large number of agents, has applications in many areas such as economics, finance, dynamics of crowds as well as in biology and and social sciences. These problems give rise to coupled systems of Hamilton-Jacobi-Focker-Plank equations, together with non-standard initial-terminal boundary conditions. Surprisingly, an important class of mean-field games can be regarded as a Euler-Lagrange equation of certain (non-coercive) functionals. We will present various techniques to establish a-priori estimates and existence of smooth solutions.

Lausanne, le 28 novembre 2012 BD/BB/VL