ICODE workshop on numerical solution of HJB equations



ID de Contribution: 12

Type: Non spécifié

Quadratic mean-field games and entropy minimization

vendredi 10 janvier 2020 10:45 (50 minutes)

Abstract: It is well-known since the seminal work of Lasry and Lions that a large class of MFG can be seen as the optimality system for an optimal control problem for the Fokker-Planck equation. In this talk, in the case of a quadratic Hamiltonian, I will describe an alternative (Lagrangian) formulation which can be viewed as an entropy minimization at the level of measures on trajectories. This formulation is reminiscent of the Schrödinger bridge problem and can lead to numerical methods thanks to the celebrated Sinkhorn algorithm. I will also sketch connections with incompressible flows. The talk will be based on joint works with J.-D. Benamou, S. Di Marino and L. Nenna.

Orateur: CARLIER, Guillaume (U. Dauphine)