Conférence du Professeur Pierre-Louis Lions (vendredi 4/9)

- Les News de Buekenhout -

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**
UREM :
Unité de Recherche sur l'Enseignement des Mathématiques**

Chers Collègues,

Dans le cadre du Workshop in Nonlinear PDEs, nous avons l'honneur d'accueillir ce vendredi Pierre-Louis Lions, Professeur au Collège de France, médaillé Fields en 1994. Son exposé a lieu vendredi à 10 heures dans la Salle Solvay (5ème étage du NO, campus de la Plaine).

La conférence sera "grand public".

Titre : On Mean Field Games

Abstract : This talk will be a general presentation of Mean Field Games (MFG in short), a new class of mathematical models and problems introduced and studied in collaboration with Jean-Michel Lasry. Roughly speaking, MFG are mathematical models that aim to describe the behavior of a very large number of agents who optimize their decisions while taking into account and interacting with the other agents. The derivation of MFG, which can be justified rigorously from Nash equilibria for N players games, letting N go to infinity, leads to new nonlinear systems involving ordinary differential equations or partial differential equations. Many classical systems are particular cases of MFG like, for example, compressible Euler equations, Hartree equations, porous media equations, semilinear elliptic equations, Hamilton-Jacobi-Bellman equations, Vlasov-Boltzmann models... In this talk we shall explain in a very simple example how MFG models are derived and present some overview of the theory, its connections with many other fields and its applications.

Au plaisir de vous voir nombreux.

Bien cordialement, Denis Bonheure.

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