

Game theory

ECTS : 5

Volume horaire : 36

Description du contenu de l'enseignement :

Volume horaire :

CM : 18h

TD : 18h

We study some basic models and results on non-cooperative game theory. The course is divided in five parts:

1. Introduction to game theory: Notations and basic concepts
2. Zero-sum games: Mixed extension of finite games and their value
3. N-player games: Nash equilibrium, their existence and complexity
4. Potential games: Congestion games and price of anarchy
5. Repeated games: Uniform games and the Folk theorem

Compétence à acquérir :

The student will know the basic concepts on non-cooperative game theory.