# GAME THEORY
## a.a. 2020-2021

**Prof. Francesco De Sinopoli**

Purpose of the course:

The goal of the course is to give students a solid background in Game Theory. Game theory provides a structured way to study strategic interactions and can be used to better understand business strategy, contracts, auctions, voting systems, crime, bargaining, and virtually any social interaction one can think of. At the end of the course students should be able to critically read and understand models proposed by economists to describe the above social interactions. Furthermore, students should be able to describe such social interactions as games.

Contents:

- ✓ Normal Form Games
    - Nash Equilibrium
    - Iterated Dominance
    - Incomplete Information
    - Trembling-Hand Perfection
- ✓ Extensive Form Games
    - Backward Induction
    - Subgame Perfection
    - Sequential Equilibrium and Extensive Form Perfection
    - Beliefs-based Refinements
    - Signaling Games
    - Repeated Games

References:

Mas-colell, M. Whinston, J.Green, *Microeconomic Theory*

E. Van Damme*, Stability and Perfection of Nash Equilibria*