

Markov-chain methods in game theory

Research Assistant Internship in the Department of Economics and Finance

1. Tutor

- Prof. Marco Scarsini, mscarsini@luiss.it

2. Skills and Experience required

- Languages: English
- Skills required: game theory (at the level of Karlin & Peres, *Game Theory, Alive* (2017)), probability, some programming skill.

3. Job description: “Markov-chain methods in game theory”

The project will focus on some classes of games whose equilibria are described in terms of the properties of a Markov chain on a graph. Although the goal of the project is to prove theorems about the existence of equilibria and their efficiency, the study will involve a heavy use of simulations.

The intern will be involved in constructing and running the simulations and will be exposed to the technical skills needed to prove the theorems.