

# UNIVERSITY OF CAMBRIDGE

## ECONOMICS S110 Advanced Game Theory

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Lectures: Mon 11am–1pm  
Office Hours: Mon 2-3pm

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### Description

This is a six-hour advanced course in Game Theory. It covers different refinements of the equilibrium concepts introduced in Game Theory part of the S100 course, as well as new applications, including the analysis of reputation effects and signaling.

### Preliminary Course Outline

1. **Normal form games: refinements and correlated equilibrium**  
Trembling hand perfect equilibrium. Proper equilibrium. Correlated equilibrium.
2. **Extensive form games: refinements**  
Weak Perfect Bayesian equilibrium. Perfect Bayesian equilibrium. Sequential equilibrium. Trembling hand perfect equilibrium.
3. **Dynamic games of incomplete information (1): reputation effects**
4. **Dynamic games of incomplete information (2): signalling**
5. **Global games**
6. **Learning in games**

### References:

A list of references will be distributed during the course. The main textbooks are:

Mas-Colell, A., A. Whinston and J. Green (1995): “*Microeconomic Theory*”, Oxford.

Fudenberg, D. and J. Tirole (1991), “*Game Theory*”, MIT.

Osborne, M. and A. Rubinstein, “*A course in Game Theory*”, MIT.