Ec/Ps 172: Game Theory

- **Instructors:** Federico Echenique and Pietro Ortoleva  
  Lectures: TuTh 10:30-12am  
  Baxter Lecture Hall  
  Class homepage:  
  [http://www.hss.caltech.edu/~ortoleva/ec-ps172/](http://www.hss.caltech.edu/~ortoleva/ec-ps172/)

- **TAs:** Emerson Melo (emelos@hss) and Salvatore Nunnari (snunnari@hss)  
  Office Hours: TBA


- **Grading.** There will be one in-class midterm on 4/28 and one final (date TBD). The midterms and the final will each count for 35% of the grade. There will also be weekly homework, which will be graded and count for 30% of the grade. Each week one or two problems will be chosen at random for grading. To receive a passing grade, students must hand in all their homework and obtain at least 10% of the grade in the midterm and in the final.

- **Course Outline.**

  1. Introduction to strategic uncertainty: perfect-information games and backward induction. Osborne: Chapter 5.  
     Applications: Stackelberg duopoly, “buying votes,” and races.


Applications: Auctions, war of attrition, electoral competition, the Kitty Genovese game, and voting in juries.
Osborne: Chapter 2, 3 and 4. For Bayesian Nash Equilibrium, Chapter 9.


Applications: Oligopoly, inflation.
Osborne: Chapter 7, 14 and 15.

Applications: Spence’s job-market signaling model. Strategic information transmission (cheap talk). Open and closed legislative rules.
Osborne: Chapter 11.

7. Other topics. Common knowledge. Agreeing to disagree and no trade.