SS 201c: Analytical Foundations of Social Science

1. Instructor: Federico Echenique
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   Lectures: MWF 9:00-9:55am
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2. Texts:
   Bewley, General Equilibrium, Overlapping Generations Models and Optimal Growth Theory
   Sundaram, A First Course in Optimization Theory
   Stokey and Lucas Recursive Methods in Economic Dynamics,
   Osborne and Rubinstein, A Course in Game Theory. Fudenberg and Tirole, Game Theory
   Optional:
   Mailath and Samuelson Repeated Games and Reputations.

3. Syllabus
   (c) Repeated Games with Perfect and Imprefect Monitoring. One-step deviation principle and the Abreu-Pearce-Stachetti approach to repeated games; APS self-generation. Comparative statics of equilibrium payoffs. Read: Fudenberg and Tirole, Ch. 5.5.
(e) **Non-transferable-utility games.** One-sided discrete allocation: The core of housing markets. Two-sided discrete allocation: Stable matchings. Efficiency and strategy proofness. Applications to school choice and labor markets. Readings TBD.

(f) **Common Knowledge and Higher order beliefs.** Knowledge and common knowledge. Agreeing to Disagree results. No-trade and speculation. Higher order beliefs: the email game. The universal type space construction.