

## Game Theory 2 Exam Topics, Spring 2024

1. Cooperative games: matching game, spanning tree game. Core, Shapley value, Shapley-Shubik power index.
2. Convex games, Shapley value in the core. Spanning tree game with reduced costs. The nucleolus.
3. Vickrey-Clarke-Groves mechanisms. Community project, sponsored search, knapsack auction.
4. Myerson's theorem, optimal auctions.
5. Fair division, envy-freeness, rent division.
6. Voting mechanisms: Arrow and Gibbard-Satterthwaite impossibility theorems, majority judgement.
7. Non-atomic and atomic congestion games, the price of anarchy. Correlated equilibria.