## Social choice theory

Topics in Discrete Mathematics: CS/MAth 945

Instructor: Gil Kalai

# 1 Week II: Social welfare functions and Arrow's theorem

The presentation followed Rubinstein's chapter on social choice with a few changes. (I will add more details later.)

### 1.1 Social welfare functions

### 1.2 Arrow theorem

### 1.3 Proofs of Arrow's theorem

We presented two proofs of Arrow's theorem:

The first proof assumes neutrality and is based on the notion of "decisive coalition". It is taken from Rubinstein's lecture notes.

The second proof follows the third proof by John Geanakopolos from his paper "three brief proofs of Arrow's theorem".

http://cowles.econ.yale.edu/P/cd/d11a/d1123-r3.pdf