PPE International Summerschool 2016, Mumbai, India

Course: Collective Choices

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Lectures:

Lecture 1: Social choice functions

Lecture 2: Social welfare functions, Restricted domains and Voting

Lecture 3: Ranking methods

Lecture 4: Cooperative games

Lecture 1: Social choice functions

1a. (Individual) preference relations

1b. Social choice situations

1c. Social choice functions

Scoring rules (Borda)

Majoritarian rules (Condorcet)

1d. Properties of social choice functions

Lecture 2: Social welfare functions, Restricted domains and Voting

- 2a. Social welfare situations
- 2b. Properties of social welfare functions
- 2c. Single-peaked preferences
- 2d. Intermediate preferences
- 2e. Dubins voting over candidates
- 2f. Voting over two alternatives
- 2g. Voting power measures

Lecture 3: Ranking methods

- 3a. Directed graphs
- 3b. Score functions
- 3c. Properties of score functions
- 3d. Eigenvector scores
- 3e. Application to social choice

Lecture 4: Cooperative games

- 4a. Cooperative games
- 4b. The Core
- 4c. The Shapley value
- 4d. Application to ranking, voting and social choice
- 4e. Axiomatizations
- 4f. The Banzhaf value
- 4g. Equal division