

Cooperative Implementation

Cooperative mechanism design uses cooperative instead of non-cooperative game forms to implement social choice functions. In line with standard implementation theory, a game form implements a social choice function, if the outcome of the social choice function at any given profile of preferences equals the solution of the game induced by the game form and the given profile of preferences. While different solution concepts for cooperative games yield different concepts of implementation, I focus on core implementation. Since core-implementable social choice functions are strategyproof and Pareto optimal, the Gibbard-Satterthwaite Impossibility Theorem applies. I therefore study core-implementability in four domains that are not afflicted by the Gibbard-Satterthwaite result: social choice with single peaked preferences, house matching, house matching with single peaked preferences and division with single peaked preferences.