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17. Control Theory and Optimization

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Victor V. Zakharov, Saint-Petersburg University, Russia

Subcore and reduced cooperative games

The *subcore* is a multiple selector of the *core* in balanced TU-cooperetive games. Analitical representation of the subcore is based on an optimal solution of a linear programming problem which is used as a status quo point. A reduced cooperative game is a game with removed player (or a coalition of players). We will present a new form of reduced game and discuss an application of linear programming approach to prove consistency of the subcore in this game and also in some other reduced games. Part of these results is joint work with O-Hun Kwon. Partly supported by RBRF, project 97-01-01177.

Reference: V. Zakharov, and O-Hun Kwon, Linear programming approach in cooperative games, *J. of Korean Math. Soc.* **34, 2** (1997), 423–435.