

Abstract (english)

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Partially defined cooperative games are a generalisation of classical cooperative games in which the worth of some of the coalitions is not known. Therefore, they are one of the possible approaches to uncertainty in cooperative game theory.

The main focus of this thesis is to collect and extend the existing results in this theory. We present results on superadditivity, convexity, positivity and 1-convexity of incomplete games. For all the aforementioned properties, a description of the set of all possible extensions (complete games extending the incomplete game) is studied. Different subclasses of incomplete games are considered, among others incomplete games with minimal information, incomplete games with defined upper vector or symmetric incomplete games. Some of the results also apply to fully generalised games.

For superadditivity and 1-convexity, solution concepts (considering only partial information) are introduced and studied. Especially for 1-convexity, a thorough investigation of the defined solution concepts consisting of different characterisations is provided.