

Jocuri Pareto-Nash-Stackelberg: modele, principii și algoritmi

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Abstract

The models of the games of the type Nash-Stackelberg, Pareto-Nash, Pareto-Stackelberg, Pareto-Nash-Stackelberg are described. The principle for solving and the conditions of existence of the solution for each described model are established. Symbolic algorithms to determine the set of solutions in mixed strategies are proposed, namely to determine: the set of Stackelberg equilibria for dyadic games; the sets of Pareto-Nash and Pareto-Stackelberg equilibria for dyadic bicriteria games. Algorithms to determine the set of equilibria in mixed strategies are proposed: the set of Pareto-Nash equilibria for multicriteria bi-matrix and multi-matrix games, the set of safe/unsafe Stackelberg equilibria for bi-matrix games. Each algorithm is applied to solve the examples.