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On multiflow lexicographics. (English) Zbl 1028.05020


This paper is devoted to multiflow in Eulerian network. It contributes to describing the set $R$ of feasible vectors. First, the feasible vectors are shown to be bases of a polymatroid $(T, p)$ forming a proper part of the polytope defined by the supply-demand conditions. $p(V) = \max \{\xi(V) : \xi \in R\}$, $V \subseteq T$ is described by a max-min theorem. Second, the lexicographically minimum (and thereby maximum) feasible vector is found, for an arbitrary ordering of $T$.

Reviewer: Alexander Rappoport (Moskva)

MSC:

05B35 Combinatorial aspects of matroids and geometric lattices
90C35 Programming involving graphs or networks
05C35 Extremal problems in graph theory

Keywords:
multiflow; Eulerian network; polymatroid; lexicographics

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References:


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