

Minimal Dominating Separating Sets in $\{1\}$ -Cycle Extendable Tournaments

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In a regular tournament on $2k + 1$ vertices the minimum size of a set that is both dominating and separating is at least k . We consider when this set is of exactly size k in tournaments that are $\{1\}$ -cycle extendable. A set of vertices, S , is dominating provided for all v in the digraph, either $v \in S$ or $(w, v) \in A(D)$ for some $w \in S$. In a strongly connected digraph, a set of vertices is separating provided removing this set of vertices results in a digraph that is not strongly connected. A tournament is $\{1\}$ -cycle extendable if every directed cycle that is not Hamiltonian can be extended by one vertex.