INEQUALITIES FOR MARKS IN DIGRAPHS

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Abstract. A 2-digraph $D$ is an orientation of a multi-graph that is without loops and contains at most two edges between any pair of distinct vertices. So, 1-digraph is an oriented graph, and complete 1-digraph is a tournament. Define $p_{vi}(p_i) = 2n - 2 + d_{vi}^+ - d_{vi}^-$, the mark (2-score) of a vertex $v_i$ in a 2-digraph $D$, where $d_{vi}^+$ and $d_{vi}^-$ denote the outdegree and indegree, respectively, of $v_i$ and $n$ is the number of vertices in $D$. In this paper, we obtain some stronger inequalities for marks in 2-digraphs.

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