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On the partition dimension of circulant graphs

Let $\Pi = \{S_1, S_2, \dots, S_k\}$ be an ordered partition of the vertex set $V(G)$ of a graph G . The *partition representation* of a vertex $v \in V(G)$ with respect to Π is the k -tuple $r(v|\Pi) = (d(v, S_1), d(v, S_2), \dots, d(v, S_k))$. If every pair of distinct vertices have distinct partition representations with respect to Π , then Π is a *resolving partition* for G . The cardinality of a smallest resolving partition of G is called the *partition dimension* of G . We present exact values and bounds on the partition dimension for undirected and directed circulant graphs.