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A note on intersection dimensions of graph classes


Abstract: The intersection dimension of a graph $G$ with respect to a class $\mathcal{A}$ of graphs is the minimum $k$ such that $G$ is the intersection of some $k$ graphs on the vertex set $V(G)$ belonging to $\mathcal{A}$. In this paper we follow [ Kratochvíl J., Tuza Z.: Intersection dimensions of graph classes, Graphs and Combinatorics 10 (1994), 159–168] and show that for some pairs of graph classes $\mathcal{A}, \mathcal{B}$ the intersection dimension of graphs from $\mathcal{B}$ with respect to $\mathcal{A}$ is unbounded.

Keywords: intersection graph, intersection dimension

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