

Irreducible graphs for the threshold strong dimension

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Let G be a connected graph and u, v and w vertices of G . Then w is said to *strongly* resolve u and v , if there is either a shortest $u-w$ path that contains v or a shortest $v-w$ path that contains u . A set W of vertices of G is a strong resolving set if every pair of vertices of G is strongly resolved by some vertex of W . The cardinality of the smallest strongly resolving set of G is $\beta_S(G)$. If $\beta_S(G)$ cannot be made smaller by adding edges to G , then we say that G is β_S -irreducible. We present some results on β_S -irreducible graphs, giving analagous results to known results on ' β -irreducible' graphs. We also provide an infinite family of β_S -irreducible graphs.

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