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*The threshold strong dimension of trees*

The cardinality of a smallest set that strongly resolves every pair of vertices in  $G$  is the *strong dimension*  $\beta_s(G)$  of  $G$ . The *threshold strong dimension*  $\tau_s(G)$  of  $G$  is the smallest strong dimension among all graphs having  $G$  as a spanning subgraph.

We show that trees with strong dimension 3 or 4 have threshold strong dimension 2. Oellermann et al observed  $\tau(K_{1,6}) > 2$ . Since  $\beta_s(K_{1,6}) = 5$  and  $\tau(K_{1,6}) \leq \tau_s(K_{1,6})$ , the threshold strong dimension of trees with strong dimension 5 need not be 2. We observe there are trees of arbitrarily large dimension with threshold strong dimension 2.