Neighbor-Connectivity of Cayley Graphs Generated by Trees and Unicyclic Graphs

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The neighbor connectivity refers to the minimum number of vertices whose removal, along with their neighbors, causes a previously connected graph to become disconnected. In this paper we focus on Cayley graphs constructed from the symmetric group S_n . We investigate the neighbor connectivity for two cases: when the generating graph is a tree, and when it is a unicyclic graph with a unique cycle of length m, specifically considering cases where m = 3, m = n - 1, or m = n.

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