Steiner $(n - k)$-diameter of some interconnection networks

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The Steiner distance $d(S)$ of the vertex subset $S \subseteq V(G)$ is the minimum size among all connected subgraphs whose vertex sets contain S, and the Steiner k-diameter of a connected graph G is the maximum $d(S)$ among all k-element vertex subsets $S \subseteq V(G)$. This paper will examine the Steiner $(n - k)$-diameter for small k and then apply the Steiner diameter to some notable classes of interconnection networks.

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