

On the Connectedness of Cages

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A (δ, g) -cage is a regular graph of degree δ and girth g with the least possible number of vertices. Cages have been intensely studied since introduced by Tutte in [5] (see [6] for a survey). Most of the work carried out so far has focused on the existence problem, whereas very little is known about structural properties. Recently, several authors have approached the problem of studying the connectivity of cages (see [1, 2, 3]). For instance, Fu et al. in [2] conjectured that all (δ, g) -cages are δ -connected and proved this statement for $\delta = 3$. In this work, several other known results concerning the connectedness of cages are summarized, including some new contributions we have obtained for either the edge-connectivity, or the (vertex-)connectivity when $g = 5, 6, 8$.

References

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