

On Cyclic G -Designs for Classes of Cubic Graphs

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A labeling of a graph G is an assignment of nonnegative integers to the vertices of G subject to certain conditions. A hierarchy of graph labelings was introduced by Rosa in the late 1960s. Rosa showed that certain basic labelings of a graph G with n edges yielded cyclic G -decompositions of K_{2n+1} , also known as cyclic G -designs, while other stricter labelings yielded cyclic G -decompositions of K_{2nx+1} for any positive integer x . Several other labelings have since been added. In this talk, I will conduct a systemic investigation of various Rosa-type labelings of some classes of cubic graphs.