

G -Designs for Nine-Edge Triangular Bicyclic Graphs

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A G -design is a decomposition of a complete graph into some graph G . There has been an ongoing effort to characterize small graphs for which there exist G -designs. A group at University of Minnesota-Duluth recently showed that for all nine-edge unicyclic graphs, there exist G -designs of order $n \equiv 0, 1 \pmod{18}$. In this talk, we discuss the current effort to extend this result to all bicyclic graphs with nine edges with exclusively triangular cycles.