

TRESTLE IN THE SQUARE OF A GRAPH

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For any integer $r > 1$, an r -trestle is a 2-connected graph F with maximum degree $\Delta(F) \leq r$. We say that a graph G has an r -trestle if G contains a spanning subgraph which is an r -trestle. This notion is a generalization of a hamiltonian cycle, since 2-trestle is exactly a hamiltonian cycle in a graph. We show a necessary and sufficient condition for the existence of a 3-trestle in the square of a tree. For the same condition we are also able to prove the existence of a 3-trestle in the square of a general graph G , but this condition is no longer necessary.

Keywords: square of a graph, r -trestle, $S(K_{1,r})$ -free.

References

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