ON DECOMPOSING REGULAR GRAPHS INTO ISOMORPHIC DOUBLE-STARS

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Abstract

A double-star is a tree with exactly two vertices of degree greater than 1. If $T$ is a double-star where the two vertices of degree greater than one have degrees $k_1 + 1$ and $k_2 + 1$, then $T$ is denoted by $S_{k_1,k_2}$. In this note, we show that every double-star with $n$ edges decomposes every $2n$-regular graph. We also show that the double-star $S_{k,k−1}$ decomposes every $2k$-regular graph that contains a perfect matching.

Keywords: graph decomposition, double-stars.

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References


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