

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.

2010 Mathematics Subject Classification: 05C51, 05C05.

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Received 26 August 2013
 Revised 7 February 2014
 Accepted 10 February 2014