

1102-05-158

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Edge-decompositions of graphs with high minimum degree.

A fundamental theorem of Wilson states that, for every graph F , every sufficiently large F -divisible clique has an F -decomposition. Here a graph G is F -divisible if $e(F)$ divides $e(G)$ and the greatest common divisor of the degrees of F divides the greatest common divisor of the degrees of G , and G has an F -decomposition if the edges of G can be covered by edge-disjoint copies of F . We extend this result to graphs which are allowed to be far from complete: we show that every sufficiently large F -divisible graph G on n vertices with minimum degree at least $(1 - |F|^{-4})n$ has an F -decomposition. Our main contribution is a general method which turns an approximate decomposition into an exact one. (Received July 28, 2014)