数学 统计学

2-连通图的单圈子圈

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摘要　证明了如下结果:(1) 一个2-连通图的⊙-图是$2(p-1)$连通的；(2)如果一个2-连通图G有两个单圈支撑子图，且这两个单圈支撑子图分别含m和n个悬挂点($m<n$)，则图G至少有$2(p-1)$个含k个悬挂点的单圈支撑子图，这里$m \leqq k \leqq n$, $p=|E(G)|-|V(G)|+1$.

关键词　　2-连通图　单圈支撑子图　⊙-图　邻⊙-图

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Unicyclic subgraphs in 2-connected graphs(Chinese)

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Abstract

This paper proved the following results:(1) The ⊙-graph of a 2-connected graph is $2(p-1)$ connected; (2) if a 2-connected graph G has two unicyclic spanning subgraphs and the number of one-valent vertices of these two subgraphs are respectively m and n (m<n), then for any integer k:$m \leqq k \leqq n$,there exist at least $2(p-1)$ unicyclic subgraphs of graph G whick have k one-valent vertices. Here, p is the dimension of the cycle space of G.

Key words　　cut edge　2-connected graph　unicyclic spanning subgraph　⊙-graph　adjacent ⊙-graph

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