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论文

联接图中的最长链

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摘要 文中未加说明的述语均同于[1]。给定图 G,以 c(G)记其联通分支数,定义h(G)=min{|s|-c(G\S):S(?)V(G),c(G\S)>1},f(G)=min{d(u)+d(v):u、v∈v(G),u=v,uv\not\in E}。1978年 H.A.Jung 在[2]中证明了,当 f(G)≥n(G)-4,n(G)≥11,h(G)≥0时,G 含哈密顿圈。本文研究了上述参数与图中最长链所含点数 l(G)之间的关系,得到下述结果:

关键词

分类号

ON THE MAXIMAL PATH IN CONNECTED GRAPHS

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Abstract Let G be a connected graph,f(G)the maximal number f such that d(u)+d(v)≥f for any two different non-adjacent vertices u,v in G,and h(G)=min{|S|-c(G/S),S(?)V(G),c(G/S)>1}.in [2] Jung has proved that G contains a Hamilto-nian cycle if f(G)≥h(G)-4,h(G)≥11 and h(G)≥0.This paper shows that,if Gis a connected graph with f(G)=h(G)-t, h(G)≥3t-1,then(i) there is a pathwhich has at least min {n,(n+f+h+3)/2} vertices in G,and (ii) G contains aHamiltonian path where t≤11 and h(G)≥1,or t≤8 and h(G)=0.Each of theseresults is best possible.

Key words

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