运筹学学报
Operations Research Transactions

运筹学学报 » 2013, Vol. 17 » Issue (2) :35-40 DOI:

运筹学

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无爪图上团横贯数的界

梁作松[1]，单而芳[2,*]，管梅[3]

1. 上海大学数学系，上海 200444 2. 上海大学管理学院，上海 200444 3. 合肥学院数学与物理系，合肥 230601

The bound of clique-transversal numbers in claw-free graphs

LIANG Zuosong[1], SHAN Erfang[2,*], GUAN Mei[3]

1. Department of Mathematics, Shanghai University, Shanghai 200444, China 2. School of Management, Shanghai University, Shanghai 200444, China 3. Department of Mathematics and Physics, Hefei College, Hefei 230601, China

摘要 设 G=(V,E) 为简单图，图 G 的每个至少有两个顶点的极大完全子图称为 G 的一个团. 一个顶点子集 S\subseteq V 称为图 G 的团横贯集，如果 S 与 G 的所有团都相交，即对于 G 的任意的团 C 有 S\cap{V(C)}\neq\emptyset. 图 G 的团横贯数是图 G 的最小团横贯集所含顶点的数目，记为~${\large\tau}_{C}(G)$. 证明了棱柱图的补图(除5-圈外)、非奇圈的圆弧区间图和 Hex-连接图这三类无爪图的团横贯数不超过其阶数的一半.

关键词： 团横贯数 团横贯集 无爪图 界

Abstract: A clique-transversal set S of a graph $G=(V, E)$ is a subset of vertices of G such that S meets all cliques of G, where a clique is defined as a complete subgraph maximal under inclusion and having at least two vertices. The clique-transversal number, of G denoted by $\tau_C(G)$, is the minimum cardinality of a clique-transversal set in G. In this paper we discuss the bound of clique-transversal numbers in several subclasses of claw-free graphs.

Keywords: clique-transversal number, clique-transversal set, claw-free graph, bound

收稿日期: 2012-11-21;

基金资助:

国家自然科学基金 (No. 11171207), 安徽省高等学校省级优秀青年人才基金 (No. 2012SQRL170)

通讯作者 单而芳 Email: efshan@shu.edu.cn

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