



华东师范大学学报(自然科学版) » 2012, Vol. 2012 » Issue (5): 120-126 DOI:

应用数学 最新目录 | 下期目录 | 过刊浏览 | 高级检索

« Previous Articles | Next Articles »

## 图的点可区别星边色数的一个上界

刘信生, 路伟华

西北师范大学, 数学与信息科学学院, 兰州 730070

### An upper bound for the vertex-distinguishing star edge chromatic number of graphs

LIU Xin-sheng, LU Wei-hua

College of Mathematics and Information Science, Northwest Normal University, Lanzhou 730070, China

- 摘要
- 参考文献
- 相关文章

全文: PDF (197 KB) HTML (1 KB) 输出: BibTeX | EndNote (RIS) 背景资料

**摘要** 图 $G$ 的点可区别星边色数, 记为 $\chi'_{\text{vds}}(G)$ , 是图 $G$ 的点可区别星边染色所用色的最小数目. 得到了一些特殊图的星边染色, 并证明了若图 $G$ 是一个最小度不小于 $5$ , 且顶点数不超过 $\Delta^7$ 的图时,  $\chi'_{\text{vds}}(G) \leq 14\Delta^2$ , 其中 $\Delta$ 是图 $G$ 的最大度.

**关键词:** 点可区别边色数 点可区别星边色数 概率方法

**Abstract:** The vertex-distinguishing star edge chromatic number of  $G$ , denoted by  $\chi'_{\text{vds}}(G)$ , is the minimum number of colors in a vertex-distinguishing star edge coloring of  $G$ . The vertex-distinguishing star edge colorings of some particular graphs were obtained. Furthermore, if  $G(V, E)$  is a graph with  $\delta \geq 5$ , and  $n \leq \Delta^7$ , then  $\chi'_{\text{vds}}(G) \leq 14\Delta^2$ , where  $n$  is the order of  $G$ ,  $\delta(G)$  is the minimum degree of  $G$ , and  $\Delta(G)$  is the maximum degree of  $G$ .

**Key words:** vertex-distinguishing edge chromatic number vertex-distinguishing star edge chromatic number probability method

收稿日期: 2011-10-01; 出版日期: 2012-09-01

引用本文:

. 图的点可区别星边色数的一个上界[J]. 华东师范大学学报(自然科学版), 2012, 2012(5): 120-126.

. An upper bound for the vertex-distinguishing star edge chromatic number of graphs[J]. Journal of East China Normal University(Natural Sc, 2012, 2012(5): 120-126.

[1] {1} GUILLAUME F, BRUCE R. Star coloring of graphs[J]. Journal of Graph Theory, 2004, {47(3)}: 163-182.


[2] {2} LIU X S, DENG K. An upper bound on the star edge chromatic index of graphs with  $\Delta \geq 7$ [J]. Journal of Lanzhou University, 08, {44(2)}: 98-100.

[3] {3} CRISSTINA B, AMEL H B, Li H. On the vertex-distinguishing proper edge-colorings[J]. Journal of Combinatorial Theory Series B,

#### 服务

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ E-mail Alert
- ▶ RSS

#### 作者相关文章

- [10] 99, {75(2)}: 288-301.
- [11] {4} BURIS A C, SCHELP R H.
- [12] Vertex-distinguishing proper edge colorings[J]. Journal of Graph Theory,
- [13] 97, {26(2)}: 74-82.
- [14] {5} ALON, SADAKOV B, ZAKS A.
- [15] Acyclic edge coloringa of graphs[J]. Journal of Graph
- [16] Theory, 2001, 37: 157-167.
- [17] {6} RAHUL M, NARAYANAN N, SUBRAMANIAN C R.
- [18] Improved bounds on acyclic edge clouring[J]. Discrete Mathematics,
- [19] {2007, 307: 3063-3069}.
- [20] {7} MICHAEL M, BRUCE R.
- [21] Graph Coloring and the Probabilistic Method[M]. New York:
- [22] Springer-Verlag, 2002.
- [23] {8} BONDY J A, MURTY U S R.
- [24] Graph Theory with Applications[M]. New York: Macmillan Press Ltd,
- [25] 1976.
- [26] {9} ALON N, SPENCER J.
- [27] The Probabilistic Method[M]. New York: John
- [28] Wiley and Sons, 1992.
- [29] {10} LIU X S, ZHU Z Q.
- [30] An Upper Bound on the Vertex-Distinguishing IE-Total
- [31] Chromatic Number of Graphs[J]. Journal of Shandong University,
- [32] 09, {44(10)}: 14-16.
- [33] {11} LIU X S, AN M Q, GAO Y.
- [34] An upper bound for the adjacent vertex-distinguishing total
- [35] chromatic number of a graph[J]. Journal of Mathematical Research \&
- [36] Exposition, 2009, {29(2)}: 343-348. 
- [37] {12} LIU X S, WEI Z Y.
- [38] An upper bound for the vertex-distinguishing acyclic edge
- [39] chromatic number of graphs[J]. Journal of Lanzhou University, 2010,
- [40] {46(5)}: 75-78.

没有找到本文相关文献