论文

# SOME PROPERTIES ON PATHS IN MATROID BASE GRAPHS

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摘要 Let G be the base graph with n vertices of any matroid. It is proved that for any two vertices of G there are at least r internally disjoint shortest paths joining them where r is their distance. Furthermore, for any integer k,  $r \le k \le n-1$ , there is a path of length k or k+1 in G joining them. If M is a simple matroid and  $P = bb_1...b_(r-1)b'$  is a shortest path in the base graph G of M, then for any integer k,  $r \le k \le n-1$ , there is a path of length k between k and k or k and k or k

关键词 分类号

#### SOME PROPERTIES ON PATHS IN MATROID BASE GRAPHS

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**Abstract** Let G be the base graph with n vertices of any matroid. It is proved that for any two vertices of G there are at least r internally disjoint shortest paths joining them where r is their distance. Furthermore, for any integer k,  $r \le k \le n-1$ , there is a path of length k or k+1 in G joining them. If M is a simple matroid and  $P = bb_1...b_(r-1)b'$  is a shortest path in the base graph G of M, then for any integer k,  $r \le k \le n-1$ , there is a path of length k between b and b'containing  $b_1,...,b_(r-1)$ . Therefore the results in [5] are generalized.

#### **Key words**

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## 扩展功能

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