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Some remarks on Ramsey matroids. (English) Zbl 0543.05021

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Results on Ramsey matroids together with some open problems are summarized. Using the method of matroid amalgamation, the following theorem is proved. Let M be a matroid and G be a subgroup of its automorphism group $\text{Aut } M$. Then there exists a matroid N such that (i) M is a restriction of N , (ii) $\text{Aut } N$ is isomorphic to G , (iii) every automorphism of G extends uniquely to an automorphism of N .

MSC:

05B35 Combinatorial aspects of matroids and geometric lattices

20B25 Finite automorphism groups of algebraic, geometric, or combinatorial structures

05C55 Generalized Ramsey theory

Keywords:

Ramsey matroids; matroid amalgamation; automorphism group