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Characterizing graphic matroids by a system of linear equations. (English) Zbl 1408.05029
J. Comb. Theory, Ser. B 103, No. 5, 642-646 (2013).

Summary: Given a rank- r binary matroid we construct a system of $O(r^3)$ linear equations in $O(r^2)$ variables that has a solution over $\text{GF}(2)$ if and only if the matroid is graphic.

MSC:

05B35 Combinatorial aspects of matroids and geometric lattices
52B40 Matroids in convex geometry (realizations in the context of convex polytopes, convexity in combinatorial structures, etc.)

Cited in **1** Review
Cited in **4** Documents

Keywords:

rank- r binary matroid

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