1080-05-114 Bert Gerards* (bert.gerards@cwi.nl). Characterizing graphic matroids by a system of linear equations. Preliminary report.

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 GF(2) if and only if the matroid is graphic. This is joint work with Jim Geelen. (Received January 18, 2012)