

Merino, Criel**The chip firing game and matroid complexes.** (English) [Zbl 0998.05010](#)

Discrete models: combinatorics, computation, and geometry. Proceedings of the 1st international conference (DM-CCG), Paris, France, July 2-5, 2001. Paris: Maison de l'Informatique et des Mathématiques Discrètes (MIMD), Discrete Math. Theor. Comput. Sci., Proc. AA, 245-256, electronic only (2001).

Summary: We construct from a cographic matroid M , a pure multicomplex whose degree sequence is the h -vector of the matroid complex of M . This result proves a conjecture of Richard Stanley (1996) in the particular case of cographic matroids. We also prove that the multicomplexes constructed are M -shellable, so proving a conjecture of Manoj Chari (1997) again in the case of cographic matroids. The proofs use results on a game for graphs called the chip firing game.

For the entire collection see [\[Zbl 0985.00015\]](#).

MSC:[05B35](#) Combinatorial aspects of matroids and geometric latticesCited in **16** Documents**Keywords:**[chip-firing game](#); [Tutte polynomial](#); [simplicial complex](#); [cographic matroid](#)**Full Text:** [EMIS](#)