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Matroids and root systems.

We survey some recent work on the matroids derived from root systems considered as collections of vectors in \mathbb{R}^n . We concentrate on one specific matroid: The vector matroid corresponding to the 600 cell. The corresponding matroid has rank 4, and the high degree of symmetry displayed by the vectors gives rise to some very symmetric flat incidence data in the matroid. We also compute the symmetry group of the matroid. This is joint work with the Lafayette College REU team from the summer of 2009. (Received January 07, 2010)