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Williams College, Williamstown, MA 01267. *Multidimensional Continued Fractions and Toric  
Varieties.*

Most attempts to generalize continued fractions involve some type of partitioning of a simplex (frequently a triangle). By the same token, toric varieties (a rich source of examples in algebraic geometry) can be manipulated by partitionings of simplices. We will discuss some of the links between these two subjects; in particular, we will see how many multidimensional continued fraction algorithms can be interpreted as the blowing up (a basic operation in algebraic geometry) of various subspaces of affine space. The emphasis will be in introducing some of the ideas of toric geometry to the continued fraction community. (Received September 27, 2005)