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Resolutions of Toric Vector Bundles

To each torus-equivariant vector bundle over a smooth complete toric variety, we associated a representable matroid (essentially a finite collection of vectors). In this talk, we will describe how the combinatorics of this matroid encodes a resolution of the toric vector bundles by a complex whose terms are direct sums of toric line bundles. With some luck, we will also outline some applications to the equations and syzygies of smooth projective toric varieties.