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Christine Berkesch* (cberkesc@math.duke.edu), Department of Mathematics, Duke University, Box 90320, Durham, NC 27708, and **Daniel Erman, Manoj Kummini** and **Steven V Sam**. *Tensor complexes*.

I will discuss two examples where free resolutions appear in algebraic geometry, in the study of determinantal varieties and the construction of resultants for multilinear systems of equations. I will then present a new construction for building multilinear free resolutions from tensors that simultaneously generalizes these examples. Our construction has recently been implemented in Macaulay 2 by D. Erman, D. Eisenbud, G. Smith, and D. Stamate. (Received August 15, 2011)