1134-16-370 Tom Braden and Carl Mautner* (mautner@math.ucr.edu). From the general linear group to matroids.

The Schur algebra is a finite-dimensional algebra that encodes the rich representation theory of the general linear group. Motivated by geometry, Tom Braden and I have defined a similar algebra associated to any graph or, more generally, matroid. After introducing the various objects involved, I will discuss how our work 'categorifies' some combinatorial results about matroids and discuss some new combinatorial questions that it raises. (Received September 11, 2017)