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**Jon Kujawa** and **Joey Randich\*** (jmrandich@ou.edu), Department of Mathematics OU, Physical Sciences Center, 601 Elm Avenue, Norman, OK 73019. *Polynomial Superfunctors and Generalized Schur Algebras*. Preliminary report.

The category of (strict) polynomial functors was introduced by Friedlander and Suslin to study the cohomology of finite group schemes. In particular, they prove that the category of strict polynomial functors of degree  $d$  is equivalent to the category of finite dimensional modules over the classical Schur algebra  $S(n; d)$  whenever  $n \geq d$ . Since then, their work has been generalized to the world of super vector spaces by Axtell and Drupieski.

In this talk, we will discuss ongoing work with Jon Kujawa that further generalizes polynomial functors. In particular, we define polynomial functors over any superalgebra (not just over a field) and prove an equivalence result involving the generalized Schur algebras defined by Evseev, Kleshchev, and Muth. (Received September 20, 2021)