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Brian D. Boe*, Mathematics Department, University of Georgia, Athens, GA 30602, and
Jonathan R. Kujawa and **Daniel K. Nakano**. *Thick subcategories for classical Lie superalgebras*. Preliminary report.

D. Benson, S. Iyengar, and H. Krause have developed a general framework for classifying thick subcategories in triangulated categories. A motivating example is the classification in the case of the stable category of finitely generated modules for a finite group G over an algebraically closed field k of characteristic p . Their general setup involves a graded commutative noetherian ring R (e.g., the cohomology ring $H^\bullet(G, k)$) acting on a compactly generated triangulated category \mathbf{T} . A key ingredient is a support theory, taking objects in \mathbf{T} to subsets of the variety $X = \text{Spec } R$.

We investigate a more general scenario where there need not be a ring R whose Spec provides the requisite geometry, but yet there is *some* variety X and a suitable support theory on \mathbf{T} taking values in X . Such a situation arises in the setting of a classical Lie superalgebra $\mathfrak{g} = \mathfrak{g}_{\bar{0}} \oplus \mathfrak{g}_{\bar{1}}$, the category \mathcal{C} of \mathfrak{g} -modules which are finitely semisimple over $\mathfrak{g}_{\bar{0}}$ (or a related module category), and $\mathbf{T} = \text{stmod}(\mathcal{C})$. We discuss the application of our approach to classifying the thick subcategories in this setting. (Received August 27, 2012)