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**Christopher M Drupieski\*** (c.drupieski@depaul.edu) and **Jonathan R Kujawa**. *Some graded analogues of one-parameter subgroups and applications to the cohomology of  $GL_{m|n(r)}$ .*

In 1997, Suslin, Friedlander, and Bendel showed that the cohomology variety of a height- $r$  infinitesimal group scheme  $G$  identifies with the variety of homomorphisms  $\nu : \mathbb{G}_{a(r)} \rightarrow G$ . They called this the ‘variety of infinitesimal one-parameter subgroups of height  $\leq r$  in  $G$ .’ In this talk I will discuss joint work with Jonathan Kujawa in which we extend the SFB result to the Frobenius kernels of the general linear supergroup  $GL_{m|n}$ . This involves introducing a family of infinitesimal supergroup schemes, which we call multiparameter supergroups, that generalize the Frobenius kernels of the additive group scheme. (Received July 24, 2017)