

Super elementary subgroups

JULIA PEVTSOVA

Department of Mathematics

University of Washington

Seattle, Washington, USA

e-mail: julia@math.washington.edu

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Abstract

For a finite group G , classical theorems of Quillen and Chouinard tell us how to detect whether a cohomology class in mod p cohomology is nilpotent or whether a module is projective: one has to restrict to elementary abelian subgroups of G . For other finite dimensional algebras with interesting cohomology rings families of subalgebras which detect nilpotent and projectivity take on a more sophisticated shape if they can be found at all. I will review the classical theory starting with Quillen and describe what plays the role of an elementary abelian subgroup for finite group schemes and finite supergroup schemes.