1024-20-195 Jon Carlson, Eric Friedlander and Julia Pevtsova* (julia@math.washington.edu). Modules of Constant Jordan type.

We define a new class of modules for finite group schemes, modules of Constant Jordan type. These modules are characterized by the property that their non-maximal support variety vanishes, and include endo-trivial modules. The class of modules of Constant Jordan type enjoys a variety of nice properties: for example, it is closed under tensor products and direct sums, and contains the entire component of the Auslander-Reiten quiver whenever it contains at least one module from the component. Even though we can prove some powerful general results about these modules, constructing concrete examples proves to be very elusive: the talk will be concluded with some open problems. (Received January 08, 2007)