Meeting: 1001, Evanston, Illinois, SS 19A, Special Session on Algebraic Representations and Deformations

1001-20-89 **Nadia Paola Mazza*** (nmazza@math.uga.edu), Department of Mathematics, University of Georgia, Athens, GA 30602. *Endo-trivial modules for finite groups of Lie type (joint work with J. Carlson and D. Nakano).*

Endo-trivial modules were first defined by E. Dade for finite p-groups. He noted that they can be considerated as the "bricks" of the endo-permutation modules, which are sources of simple modules for many finite groups. Moreover, modulo an equivalence relation, the endo-trivial modules form a finitely generated abelian group. Recently, J. Carlson and J. Thèvenaz have given a complete classification of these modules. In this joint work, we generalize the notion of endo-trivial module to arbitrary finite groups. Then we attempt to classify them (up to equivalence) in the particular case of finite groups of Lie type. (Received August 13, 2004)