1054-20-124   **Jon F Carlson*** (`jfc@math.uga.edu`), Department of Mathematics, University of Georgia, Athens, GA 30602, and **Nadia Mazza** and **Jacques Thévenaz**. *Endotrivial modules.* Preliminary report.

This is a report on efforts to classify the endotrivial modules over the modular groups algebras of groups which are not p-groups. A classification of the endotrivial modules over p-groups was completed by the speaker and Thévenaz a few years ago, building on the work of many others, notably Dade and Alperin. The endotrivial modules form an important part of the Picard group of self equivalences of the stable category of modules over the group algebra. For groups which are not p-groups, the problem of determining the endotrivial modules often reduces to discovering when the Green correspondent of an endotrivial module is endotrivial. This investigation often involves a detailed study of the representation theory of the groups in question. Here we present some recent results on endotrivial modules over solvable and p-nilpotent groups as well as groups with quaternion Sylow p-subgroup. (Received September 10, 2009)