

1077-20-729

Daciberg Lima Goncalves* (dlgoncal@ime.usp.br), Rua do Matao 1010, Sao Paulo, SP 05508-090, Brazil, and **Dessislava H. Kouchloukova**, Department of Mathematics, University of Campinas, Campinas, SP 13083-970, Brazil. *Σ theory and twisted conjugacy classes.*

Using Σ theory we show that for large classes of groups G there is a subgroup H of finite index in $Aut(G)$ such that for $\varphi \in H$ the Reidemeister number $R(\varphi)$ is infinite. In some cases we even proof that $H = Aut(G)$. These cases includes the generalized Thompson's groups $F_{n,0}$ and their finite direct products, This was the initial motivation. Some cases where we obtain H of finite index, but not necessarily equals to $Aut(G)$ are: 1) nilpotent-by-abelian of type FP_∞ , 2) G of type FP_2 but without free non-abelian subgroups and with maximal metabelian quotient not polycyclic, 3) some direct products of groups, 4) the pure symmetric automorphism group. (Received September 11, 2011)