

1043-20-144

**Robert Fitzgerald Morse\*** ([rm43@evansville.edu](mailto:rm43@evansville.edu)), Department of Electr. Eng. and Comp. Sci., 1800 Lincoln Avenue, Evansville, IN 47722. *Computing homological functors of polycyclic groups.*

We will review recent results in computing the nonabelian tensor square, nonabelian exterior square and associated groups for polycyclic groups. These results have applications for finite  $p$ -groups and crystallographic groups. These computations aid in characterizing when such groups are central quotients (capable) and in computing their Schur multipliers. (Received August 25, 2008)