

**Meeting:** 1003, Atlanta, Georgia, SS 8A, AMS Special Session on Modular Representation Theory of Finite and Algebraic Groups, I

1003-20-27            **J. L. Alperin\*** ([alperin@math.uchicago.edu](mailto:alperin@math.uchicago.edu)), J. L. Alperin, 5734 University Avenue, Chicago, IL 60637. *Finite  $p$ -groups and Lie orders*. Preliminary report.

The study of classifications of finite  $p$ -groups has been connected with the representation theory of finite general linear groups by G. Higman over forty years ago. More recent work by T. Weigel on rigidity of modular Lie algebras also has consequences for the structure of  $p$ -groups. This leads to some new ideas for finding interesting classifications, but this talk will follow up in another direction, finding some easy first classifications of Lie orders in semisimple Lie algebras over the  $p$ -adic numbers. (Received June 08, 2004)