

**T. Weigel** *p-Central p-Groups and the Fong-Swan- Rukolaine Theorem.*

A finite  $p$ -group  $P$  is called  $p$ -central of height  $k$ , if every element of order  $p$  is contained in  $\zeta_k(P)$ , the  $k^{th}$ -term of the ascending central series of  $P$ .

From I. M. Isaacs version of the Fong-Swan-Rukolaine theorem it will be shown that for  $p$  odd every finite  $p$ -soluble group  $G$  with  $p$ -central  $p$ -Sylow subgroup  $P$  of height  $p - 2$  satisfies  $G = O_{p',p,p'}(G)$ . In particular,  $\mathbf{N}_G(P)$  controls  $p$ -fusion in  $G$ . This theorem generalizes a result of S. Priddy and H. W. Henn, and J. Thévenaz which showed that for  $p$  odd  $\mathbf{N}_G(P)$  controls  $p$ -fusion in  $G$  whenever  $G$  is a finite group with  $p$ -central Sylow  $p$ -subgroup  $P$  of height 1.