

Year: 2021

Vol.: 98

Fasc.: 3-4

**Title:** Some finite  $p$ -groups whose central automorphisms fixing the center element-wise are all inner

**Author(s):** Hemant Kalra, Deepak Gumber and Mahak Sharma

We characterize all finite  $p$ -groups  $G$  of co-class up to 5, in particular groups of order  $p^8$ , whose central automorphisms fixing the center element-wise are all inner.

**Address:**

Hemant Kalra  
Department of Mathematics  
Guru Jambheshwar University  
of Science and Technology  
Hisar-125001  
India

**Address:**

Deepak Gumber  
School of Mathematics  
Thapar Institute of  
Engineering and Technology  
Patiala-147004  
India

**Address:**

Mahak Sharma  
Department of Mathematics  
Goswami Ganesh Dutta  
Sanatan Dharma College  
Chandigarh-160030  
India