

## Finite groups whose conjugacy class sizes of primary and biprimary elements are Hall numbers

By CHANGGUO SHAO (Shandong) and QINHUI JIANG (Shandong)

**Abstract.** Let  $G$  be a finite group, and  $m$  be a positive integer. Then  $m$  is called a Hall number of  $G$  if  $m$  is a positive divisor of  $|G|$  satisfying  $\gcd(|G|/m, m) = 1$ . In this paper, we classify finite groups whose conjugacy class sizes of primary and biprimary elements are Hall numbers.

CHANGGUO SHAO &  
QINHUI JIANG  
SCHOOL OF MATHEMATICAL SCIENCES  
UNIVERSITY OF JINAN  
250022, SHANDONG  
CHINA

---

*Mathematics Subject Classification:* 20E45, 20D10.

*Key words and phrases:* finite groups, conjugacy class sizes, primary and biprimary elements, Hall numbers.