

RS rings and their applications

By CANG WU (Maanshan) and LIANG ZHAO (Maanshan)

Abstract. In this paper, a ring R is said to be an RS ring if every regular element is strongly regular. It is shown that the concept of RS rings is a generalization of those of abelian rings and nilpotent-closed rings. Various properties of RS rings are investigated. As applications, we study the properties of rings related to RS properties. Some well-known results on regular elements and π -regular elements in commutative rings are generalized.

CANG WU &
LIANG ZHAO
SCHOOL OF MATHEMATICS AND PHYSICS
ANHUI UNIVERSITY OF TECHNOLOGY
MAANSHAN 243032
CHINA

Mathematics Subject Classification: 16U80, 15A09, 16E50.

Key words and phrases: RS rings, abelian rings, IC rings, generalized inverses.