

This is a review text file submitted electronically to MR.

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Reviewer number: 038954

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Short title: On Lie ideals and left Jordan σ -centralizers of 2-torsion-free rings.

MR Number: 2482409

Primary classification: 16W99

Secondary classification(s): 16W10

Review text:

In [B. Zalar. Comment. Math. Univ. Carolinae 32,4 (1991) 609-614], Borut Zalar proved that if R is a 2-torsion-free semiprime ring, every left Jordan centralizer, i.e., every additive map $T : R \rightarrow R$ such that $T(x^2) = T(x)x$ is a homomorphism of right R -module (which is called a left centralizer). In the paper under review, the authors have studied similar problems under other conditions over R . The main result of the paper states that if R is a 2-torsion-free ring, U is a square closed Lie ideal of R which contains a commutator that is not a right zero divisor, and $G : R \rightarrow R$ is a left Jordan σ -centralizer map of U into R , i.e., G is an additive map with $G(x^2) = G(x)\sigma(x)$ for every $x \in U$, for an endomorphism $\sigma : R \rightarrow R$ of R , then G is a left σ -centralizer map of U into R , i.e., $G(xy) = G(x)\sigma(y)$ for every $x, y \in U$.

Typeset by $\mathcal{A}\mathcal{M}\mathcal{S}$ - $\mathcal{T}\mathcal{E}\mathcal{X}$