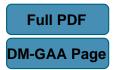
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## SOME RESULTS OF REVERSE DERIVATION ON PRIME AND SEMIPRIME $\Gamma\text{-}RINGS$

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## Abstract

In the present paper, it is introduced the definition of a reverse derivation on a  $\Gamma$ -ring M. It is shown that a mapping derivation on a semiprime  $\Gamma$ -ring M is central if and only if it is reverse derivation. Also it is shown that M is commutative if for all  $a, b \in I$  (I is an ideal of M) satisfying  $d(a) \in Z(M)$ , and  $d(a \circ b) = 0$ .

**Keywords:** Prime  $\Gamma$ -rings, semiprime  $\Gamma$ -rings, derivations, reverse derivations.

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