

DERIVATIONS ON SEMIRINGS WITH ANTICOMMUTATIVE CONDITIONS

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Abstract

In this paper, we consider a prime semiring S , a non-zero left or right ideal I of S and a non-zero derivation d on S . We prove the commutativity of S if $d(x) \circ d(y) = 0$, $\forall x, y \in S$ or $x \circ d(x) = 0$, $\forall x \in I$. Also we prove that a semiprime semiring S contains a non-zero central ideal if d is centralizing on I or $d(x) \circ d(y) = 0$, $\forall x, y \in I$.

Key Words : *Semiring, Derivation, Anticommutativity.*

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