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Summary: Under some mild conditions on a unital ring $R$, we show that every additive map $\delta$ from $R$ into itself satisfies $\delta(S \circ T) = \delta(S) \circ T + S \circ \delta(T)$ for any $S, T \in R$ with $ST = P$ if and only if $\delta$ is a Jordan derivation, where $S \circ T = ST + TS$ is the Jordan product and $P$ is a nontrivial idempotent of ring $R$.

MSC:
16W25 Derivations, actions of Lie algebras
16W10 Rings with involution; Lie, Jordan and other nonassociative structures

Keywords:
additive maps; Jordan derivations; Jordan derivable maps; idempotents

Full Text: DOI