ON DERIVATIONS AND JORDAN DERIVATIONS THROUGH ZERO PRODUCTS

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Abstract. Let $\mathcal{A}$ be a unital complex (Banach) algebra and $\mathcal{M}$ be a unital (Banach) $\mathcal{A}$-bimodule. The main results describe (continuous) derivations or Jordan derivations $D: \mathcal{A} \to \mathcal{M}$ through the action on zero products, under certain conditions on $\mathcal{A}$ and $\mathcal{M}$. The proof is based on the consideration of a (continuous) bilinear map satisfying a related condition.


Keywords and phrases: Bilinear maps, derivation, Jordan derivation, zero (Jordan) product determined algebra.

REFERENCES