ON THE STABILITY OF LEFT $\delta$–CENTRALIZERS ON BANACH LIE TRIPLE SYSTEMS

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Abstract. In this paper under a condition, we prove that every Jordan left $\delta$-centralizer on a Lie triple system is a left $\delta$-centralizer. Moreover, we use a fixed point method to prove the generalized Hyers-Ulam-Rassias stability associated with the Pexiderized Cauchy-Jensen type functional equation

$$rf\left(\frac{x+y}{r}\right) + sg\left(\frac{x-y}{s}\right) = 2h(x),$$

for $r, s \in \mathbb{R} \setminus \{0\}$ in Banach Lie triple systems.


Keywords and phrases: Lie triple system, left $\delta$-centralizer, stability, Jordan left $\delta$-centralizer.

REFERENCES