STABILITY OF CAUCHY ADDITIVE FUNCTIONAL EQUATION IN FUZZY BANACH SPACES

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Abstract. In this article, we prove the generalized Hyers–Ulam stability of the following Cauchy additive functional equation

\[ f\left(\frac{x-y}{n}+z\right) + f\left(\frac{y-z}{n}+x\right) + f\left(\frac{z-x}{n}+y\right) = f(x+y+z) \]

in fuzzy Banach spaces for any fixed nonzero integer \( n \).


Keywords and phrases: Fuzzy Banach space, Cauchy additive functional equation, Hyers–Ulam stability, fixed point alternative.

REFERENCES


