ULAM’S TYPE STABILITY OF A FUNCTIONAL EQUATION DERIVING FROM QUADRATIC AND ADDITIVE FUNCTIONS

ABASALT BODAGHI AND SANG OG KIM

Abstract. In this paper, we continue the investigation of functional equation which is begun by the authors in the first part. We also prove the Hyers-Ulam stability for the following mixed quadratic-additive functional equation in quasi-Banach spaces.

\[ f(x + my) + f(x - my) = \begin{cases} 2f(x) - 2m^2f(y) + m^2f(2y) & \text{if } m \text{ is even} \\ f(x + y) + f(x - y) - 2(m^2 - 1)f(y) + (m^2 - 1)f(2y) & \text{if } m \text{ is odd.} \end{cases} \]


Keywords and phrases: Additive mapping, Hyers-Ulam stability, quadratic mapping, quasi-Banach space.

REFERENCES


