

APPROXIMATION OF TWO GENERAL FUNCTIONAL EQUATIONS IN 2-BANACH SPACES

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Abstract. In this paper, we study the Ulam stability and hyperstability of two general functional equations in several variables in 2-Banach spaces. Multi-additive and multi-Jensen functions are particular cases of these functional equations. We also improve the main results of Theorem 3 and Theorem 4 of [Ciepliński, K. Ulam stability of functional equations in 2-Banach spaces via the fixed point method. *J. Fixed Point Theory Appl.* **23** (2021), no. 3, Paper No. 33, 14 pp.] and their consequences.

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