Park, Choonkil; **Gordji, Madjid Eshaghi**; **Ghaemi, Mohammad Bagher**; **Majani, Hamid**
Fixed points and approximately octic mappings in non-Archimedean 2-normed spaces. (English) Zbl 1280.39019
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Summary: Using the fixed point method, we investigate the Hyers-Ulam stability of a system of additive-cubic-quartic functional equations with constant coefficients in non-Archimedean 2-normed spaces. Also, we give an example to show that some results in the stability of functional equations in (Archimedean) normed spaces are not valid in non-Archimedean normed spaces.

MSC:

39B82	Stability, separation, extension, and related topics for functional equations	Cited in **3** Documents
39B72	Systems of functional equations and inequalities	
46S10	Functional analysis over fields other than $\mathbb{R}$ or $\mathbb{C}$ or the quaternions; non-Archimedean functional analysis	
39B52	Functional equations for functions with more general domains and/or ranges	

Keywords:

octic functional equation; Hyers-Ulam stability; non-Archimedean 2-normed space; fixed point method; system of additive-cubic-quartic functional equations

Full Text: DOI

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