

## ORTHOGONAL STABILITY OF AN ADDITIVE-QUADRATIC FUNCTIONAL EQUATION IN NON-ARCHIMEDEAN SPACES

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### Abstract

Using direct method, the authors prove the Hyers-Ulam stability of the orthogonally additive-quadratic functional equation of the form

$$f(x+y) - f(-x-y) = f(x) - f(-x) + 4f(y) - f(2y) \quad (0.1)$$

for all  $x, y$  with  $x \perp y$ , in non-Archimedean Banach spaces. Here  $\perp$  is the orthogonality in the sense of Rätz.

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