

## STABILITY OF CUBIC AND QUATRIC FUNCTIONAL EQUATION IN QUASI- $\beta$ -NORMED SPACES

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### Abstract

In this paper, we introduce and investigate the general solution of a new functional equation

$$2a^4 f\left(\frac{x+y}{a}\right) + 2a^4 f\left(\frac{x-y}{a}\right) = (1+a)[f(x+y) + f(x-y)] \\ + (1-a)[f(-x+y) + f(-x-y)]$$

where  $a \geq 2$  and discuss its Generalized Hyers - Ulam - Rassias stability in Quasi- $\beta$ - Normed spaces.

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Key Words : *Generalized Hyers-Ulam-Rassias stability, Cubic function, Quatric function, Quasi- $\beta$ -spaces,  $(\beta, p)$ -Banach spaces, Contratively subadditive, Expansively super additive.*

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