

Ravi, K.; Rassias, John Michael; Arunkumar, M.; Kodandan, R.

Stability of a generalized mixed type additive, quadratic, cubic and quartic functional equation. (English) [Zbl 1195.39010](#)

JIPAM, J. Inequal. Pure Appl. Math. 10, No. 4, Paper No. 114, 29 p. (2009).

The authors investigate the Hyers-Ulam-Aoki-Rassias stability of the following functional equation:

$$f(x + ay) + f(x - ay) = a^2[f(x + y) + f(x - y)] + 2(1 - a^2)f(x) + \frac{a^4 - a^2}{12}[f(2y) + f(-2y) - 4f(y) - 4f(-y)].$$

Reviewer: Pál Burai (Debrecen)

MSC:

39B82 Stability, separation, extension, and related topics for functional equations

Cited in **12** Documents

39B52 Functional equations for functions with more general domains and/or ranges

Keywords:

additive functional equation; quadratic functional equation; cubic functional equation; quartic functional equation; mixed type functional equation; Hyers-Ulam-Aoki-Rassias stability; Hyers-Ulam-Rassias stability; Ulam-Gavruta-Rassias stability

Full Text: [EuDML](#) [EMIS](#)