Year: 2009

Vol.: 75

Fasc.: 1-2

Title: Stability of a quadratic functional equation on semigroups

Author(s): Zygfryd Kominek

The stability problem of the functional equation of the form

$$f(x+2y) + f(x) = 2f(x+y) + 2f(y),$$

is investigated. We prove that if the norm of the difference between left-hand side and right-hand side of the equation is majorized by a function  $\omega$  of two variables having some standard properties then there exists a unique solution F of our equation and the norm of differences between F and the given function f is controlled by a function depending on  $\omega$ .

## Address:

Zygfryd Kominek Institute of Mathematics Silesian University Bankowa 14 PL-40-007 Katowice Poland