ON THE STABILITY OF THE QUADRATIC FUNCTIONAL EQUATION IN TOPOLOGICAL SPACES

M. ADAM[1]* AND S. CZERWIK[2]

This paper is dedicated to Professor Themistocles M. Rassias.

Submitted by T. Reidel

ABSTRACT. In this paper we investigate the problem of the Hyers–Ulam stability of the generalized quadratic functional equation

$$f(x + y) + f(x - y) = g(x) + g(y),$$

where f, g are functions defined on a group with values in a linear topological space.

[1] School of Labour Safety Management, Bankowa 8, PL-40-007 Katowice, Poland.
  E-mail address: madam@wszop.edu.pl

[2] Institute of Mathematics, Silesian University of Technology, Kaszubska 23, PL-44-100 Gliwice, Poland.
  E-mail address: Stefan.Czerwik@polsl.pl