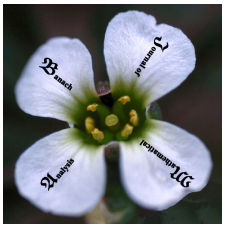

Banach J. Math. Anal. 1 (2007), no. 1, 43–55

Banach Journal of Mathematical Analysis
ISSN: 1735-8787 (electronic)
http://www.math-analysis.org

ON THE STABILITY OF DRYGAS FUNCTIONAL EQUATION ON GROUPS

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This paper is dedicated to Professor Themistocles M. Rassias.

Submitted by S. Saitoh

Abstract. In this paper, we study the stability of the system of functional equations $f(xy)+f(xy^{-1})=2f(x)+f(y)+f(y^{-1})$ and $f(yx)+f(y^{-1}x)=2f(x)+f(y)+f(y^{-1})$ on groups. Here f is a real-valued function that takes values on a group. Among others we proved the following results: 1) the system, in general, is not stable on an arbitrary group; 2) the system is stable on Heisenberg group $UT(3,K)$, where K is a commutative field with characteristic different from two; 3) the system is stable on certain class of n-Abelian groups; 4) any group can be embedded into a group where this system is stable.

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Date: Received: 2 April 2007; Accepted: 19 October 2007.

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2000 *Mathematics Subject Classification.* Primary 39B52; Secondary 39B72.

Key words and phrases. Additive character of a group, bihomomorphism, Drygas functional equation, homomorphism, Jensen functional equation, metabelian group, n-Abelian group, and quadratic functional equation.