HYERS–ULAM–RASSIAS STABILITY OF A GENERALIZED PEXIDER FUNCTIONAL EQUATION

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This paper is dedicated to Professor Themistocles M. Rassias.

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ABSTRACT. In this paper, we obtain the Hyers–Ulam–Rassias stability of the generalized Pexider functional equation

$$\sum_{k \in K} f(x + k \cdot y) = |K|g(x) + |K|h(y), \ x, y \in G,$$

where G is an abelian group, K is a finite abelian subgroup of the group of automorphism of G.

The concept of Hyers–Ulam–Rassias stability originated from Th.M. Rassias' Stability Theorem that appeared in his paper: On the stability of the linear mapping in Banach spaces, Proc. Amer. Math. Soc. 72(1978), 297-300.

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