Title: Wigner's theorem revisited

Author(s): Gyula Maksa and Zsolt Páles

In this paper, we give the general solution of the functional equation

\[ \{ \| f(x) + f(y) \|, \| f(x) - f(y) \| \} = \{ \| x + y \|, \| x - y \| \} \quad (x, y \in X) \]

where \( f : X \to Y \) and \( X, Y \) are inner product spaces. Related equations are also considered. Our main tool is a real version of Wigner’s unitary-antiunitary theorem.

Address:

Gyula Maksa
Institute of Mathematics
University of Debrecen
H-4010 Debrecen, P.O. Box 12
Hungary

Address:

Zsolt Páles
Institute of Mathematics
University of Debrecen
H-4010 Debrecen, P.O. Box 12
Hungary