STABILITY OF A PEXIDER TYPE FUNCTIONAL EQUATION RELATED TO DISTANCE MEASURES

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Abstract. This work aims to study of the stability of two generalizations of the functional equation f(pr,qs) + f(ps,qr) = f(p,q)f(r,s), namely (i) f(pr,qs) + g(ps,qr) = h(p,q)h(r,s), and (ii) f(pr,qs) + g(ps,qr) = h(p,q)k(r,s) for all $p,q,r,s \in G$, where *G* is a commutative semigroup. Thus this work is a continuation of our earlier works [15] and [16], and the functional equations studied here arise in the characterizations of symmetrically compositive sum form distance measures.

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