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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.

Mathematics subject classification (2010): 39B82, 39B52.
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