Cauchy type equations related to some singular associative operations

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Keywords: Functional equation, local solution, additive function, semigroup, associativity component of the set, Cauchy equation, Pexider equation with a restricted domain
AMS Subject classification: 39B22, 39B52

Abstract: L. Losonczi [3] determined local solutions of the generalized Cauchy equation $f(F(x,y)) = f(x) + f(y)$ on components of the domain of definition of a given associative operation F. In some cases local solutions were found on domains smaller than the components of F as well. The aim of the present paper is to describe local solutions of the equation considered on components of the domain of definition of F in cases which were omitted in [3].