

## A NOTE ON THE "A CONTRACTION THEOREM IN Menger PROBABILISTIC METRIC SPACES"

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ABSTRACT. We point out an error in the paper Shakeri [ J. Nonlinear Sci. Appl. 1 (2008), no. 3, 189–193].

We point out an error in the paper [2]: the proof of the fact that the sequence  $\{f(x_n)\}$  is Cauchy is not correct.

Thus, Theorem 2.2 in [2] is not true unless  $T$  is of Hadžić-type (see Example 2.1 in [1]). Under this additional condition, the result of Shakeri can be obtained as a corollary of the following theorem:

**Theorem 0.1.** ([1], Theorem 2.1) *Let  $(X, M, T)$  be a left complete Menger PQM-space with  $T$  of Hadžić-type, such that every convergent sequence in  $X$  has a unique limit.*

*Let  $f, g$  be two selfmappings of  $X$  satisfying the following conditions:*

- (i)  $g(X) \subset f(X)$ .
- (ii)  $f$  is continuous.
- (iii) *There is  $k \in (0, 1)$  such that  $F_{g(x)g(y)}(kt) \geq F_{f(x)f(y)}(t)$  for all  $x, y \in X$  and  $t > 0$ .*

*Then  $f$  and  $g$  have a unique common fixed point provided  $f$  and  $g$  commute.*

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## REFERENCES

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- [2] S. Shakeri, A contraction theorem in Menger probabilistic metric spaces, *J. Nonlinear Sci. Appl.* 1 (2008), no. 3, 189–193.

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