mathematics

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Correction

Correction: Singh, Y. Mahendra, et al. *F*-Convex Contraction via Admissible Mapping and Related Fixed Point Theorems with an Application. *Mathematics* 2018, 6, 105

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Received: 25 March 2019; Accepted: 27 March 2019; Published: 8 April 2019

check for updates

We found some errors in Lemma 1 of our paper [1], thus, we would like to make the following corrections:

Instead of the following Lemma 1 [1]:

Lemma 1. *Let (X,d) be a metric space and $T : X \to X$ be an α-F-convex contraction satisfying the following conditions:*

(i) T is α-admissible;

(ii) there exists $x_0 \in X$ such that $\alpha(x_0, Tx_0) \geq 1$.

Define a sequence $\{x_n\}$ in X by $x_{n+1} = Tx_n = T^{n+1}x_0$ for all $n \geq 0$. Then $\{d^p(x_n, x_{n+1})\}$ is strictly non-increasing sequence in X.

It should read:

Lemma 2. *Let (X,d) be a metric space and $T : X \to X$ be an $\alpha - F$-convex contraction satisfying the conditions:*

(i) T is α-admissible;

(ii) there exists $x_0 \in X$ such that $\alpha(x_0, Tx_0) \geq 1$.

Define a sequence $\{x_n\}$ in X by $x_{n+1} = Tx_n = T^{n+1}x_0$ for all $n \geq 0$, then $F\Big(d^p(x_n, x_{n+1})\Big) \leq F(v) - l\tau$, whenever $n = 2l$ or $n = 2l+1$ for $l \geq 1$.

Proof. Following the same steps as in Lemma 1, the last paragraph was replaced with the following: Therefore, $v > d^p(x_2, x_3)$ and hence $F\Big(d^p(x_2, x_3)\Big) \leq F(v) - \tau$. By a similar argument, we obtain $F\Big(d^p(x_3, x_4)\Big) \leq F(v) - \tau$; continuing in these way, we arrive at $F\Big(d^p(x_n, x_{n+1})\Big) \leq F(v) - l\tau$, whenever $n = 2l$ or $n = 2l+1$ for $l \geq 1$. □

In the proof of the Theorem 2 [1], instead of the following:

"By Lemma 1, $\{d^p(x_n, x_{n+1})\}$ is strictly non-increasing sequence. Therefore,

$$F\Big(d^p(x_n, x_{n+1})\Big) \leq F\Big(d^p(x_{n-2}, x_{n-1})\Big) - \tau \leq \ldots \leq F(v) - l\tau \tag{7}$$

whenever $n = 2l$ or $n = 2l + 1$ for $l \geq 1$".

It should be: By Lemma 1, we obtain:

$$F\Big(d^p(x_n, x_{n+1})\Big) \leq F(v) - l\tau, \tag{7}$$

whenever $n = 2l$ or $n = 2l + 1$ for $l \geq 1$. The rest of the proof is unaltered.

The authors apologize to all the readers for any inconvenience this may have caused.

Reference

1. Singh, Y.M.; Khan, M.S.; Kang, S.M. On interpolative F-convex contraction and fixed point theorems with and application. *Mathematics* **2018**, *6*, 105. [CrossRef]