



Corrigendum

Corrigendum to “A new class of hybrid contractions with higher-order iterative Kirk’s method for reckoning fixed points”

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Abstract: In this corrigendum, we would like to emphasize that the findings in paper [1] are a generalization of the results presented by Zhou et al. in [2]. This remark highlights key elements of prior research that are relevant to our work [1]. This correction does not alter any results or the conclusion of the article.

Introduction

The weak contraction mappings are essential in various mathematical fields due to their relaxed condition, which allows for a wider range of applications. They play a crucial role in fixed point theory, differential equations, optimization, and numerical analysis, providing a valuable tool for studying and solving a broader class of mathematical problems. In this direction, Zhou et al. [2] presented a notable paper as a generalization of the idea of enriched contraction mapping by selecting the auxiliary functions $f : R_+^3 \rightarrow R_+$ under k -fold averaged mapping based on Kirk’s iterative algorithm of order k . Under this generalization, they obtained certain and useful fixed-point results, which turned out to be a good contribution to fixed-point theory. Considering the significance of this trend, Nisar et al. [1] have put out an analogous investigation to the findings of [2] by redefining the auxiliary function to expand its domain by incorporating four components in the form $f : R_+^4 \rightarrow R_+$. Furthermore, this generalization encompassed the presentation of definitions and

theorems and included illustrative examples that substantiate the theoretical outcomes under the newly defined function.

Corrigendum

The results derived in paper [1] are a generalization and extension of the results of paper [2], which were overlooked in the literature review section of [1].

Conflict of interest

The authors declare no conflict of interest.

References

1. K. S. Nisar, H. A. Hammad, M. Elmursi, A new class of hybrid contractions with higher-order iterative Kirk's method for reckoning fixed points, *AIMS Math.*, **9** (2024), 20413–20440. <https://doi.org/10.3934/math.2024993>
2. M. Zhou, N. Saleem, M. Abbas, Approximating fixed points of weak enriched contractions using Kirk's iteration scheme of higher order, *J. Inequal. Appl.*, **2024** (2024), 23. <https://doi.org/10.1186/s13660-024-03097-2>



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