

# Best proximity point results for mixed multivalued mappings with application to homotopy theory

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## Abstract

In this paper, first, we introduce a concept of mixed multivalued contraction mapping. Then, we present some best proximity point results for such mappings on 0-complete partial metric spaces. Hence, we extend and generalize some famous and nice results existing in the literature such as Abkar and Gabeleh, Gabeleh and Aydi et al. Also, we provide some nontrivial illustrative examples to support our results and to compare with the results mentioned before. Finally, the first time, we give some applications to homotopy theory via new best proximity point results. Hence, we obtain some best proximity point results for homotopic mappings

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