ON CYCLIC MEIR–KEELER
CONTRACTIONS IN METRIC SPACES

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Abstract

Cyclic Meir-Keeler contractions are considered under the recently introduced WUC and HW properties on pairs of subsets of metric spaces. We show that, in contrast with previous results in the theory, best proximity point theorems under these properties do not directly extend from cyclic contractions to cyclic Meir-Keeler contractions. We obtain, however, a positive result for cyclic Meir-Keeler contractions under additional properties which is shown to be an extension of already existing results for cyclic contractions. Moreover we give examples supporting the necessity of our additional conditions.