

# HYBRID-TYPE OF FIXED-SET RESULTS IN BANACH ALGEBRAS INVOLVING THE SUM AND THE PRODUCT OF MULTI-VALUED MAPPINGS UNDER WEAK TOPOLOGY

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## Abstract

In this manuscript, by means of the technique of measures of weak noncompactness, we prove some fixed set results for the sum and the product of  $(p+1)$  multi-valued mappings  $P_{p i=1} A B_i$ ; acting on Banach algebras satisfying a certain sequential condition (P) under weak topology. In addition, by using a new definition of the multi-valued mapping  $I A$ ; we get new fixed set theorems for the mappings of the form  $I A 1 P_{n i=1} B_i$  under some suitable conditions on the operators  $A; B_1; \dots; B_p$  in Banach algebras. Applications to the theory of self-similarity are also given.

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