

ON A BROAD CATEGORY OF MULTIVALUED WEAKLY PICARD OPERATORS

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Abstract. In the present paper, considering a recent technique which is used by Jleli and Samet [10] for fixed points of single-valued maps, we introduce a new concept of multivalued θ -contractions on metric spaces and prove that some of such mappings are multivalued weakly Picard operators on complete metric space. Finally, we give a nontrivial example to show that the class of multivalued θ -contractions is more general than multivalued contractions in the sense of Nadler [14] on complete metric spaces.

Key Words and Phrases: fixed point, multivalued mapping, multivalued contraction, weakly Picard operator.

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