

## Some new types multivalued $F$ -contractions on quasi metric spaces and their fixed points

HATİCE ASLAN HANÇER, MURAT OLGUN and ISHAK ALTUN

### ABSTRACT.

In this paper we present two new results for the existence of fixed points of multivalued mappings with closed values on quasi metric space. First we introduce the multivalued  $F_d$ -contraction on quasi metric space  $(X, d)$  and give a fixed point result related to this concept. Then taking into account the  $Q$ -function on a quasi metric space, we establish a  $Q$ -function version of this concept as multivalued  $F_q$ -contraction and hence we present a fixed point result to see the effect of  $Q$ -function to existence of fixed point of multivalued mappings on quasi metric space.

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Corresponding author: Ishak Altun; ishakaltun@yahoo.com

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DEPARTMENT OF MATHEMATICS

FACULTY OF SCIENCE AND ARTS

KIRIKKALE UNIVERSITY

71450 YAHSIHAN, KIRIKKALE, TURKEY

Email address: haticeaslanhancer@gmail.com, ishakaltun@yahoo.com

DEPARTMENT OF MATHEMATICS

FACULTY OF SCIENCE

ANKARA UNIVERSITY

06100, TANDOGAN, ANKARA, TURKEY

Email address: olgun@ankara.edu.tr