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Two fixed point results for multivalued F -contractions on M -metric spaces. (English)

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Summary: In this article, by considering Feng-Liu's technique, we present new fixed point results for multivalued mappings which are regarding to F -contraction on M -complete M -metric space. Then, we provide some nontrivial examples showing that our main results proper extension of some earlier results in the literature.

MSC:

47H10 Fixed-point theorems

54H25 Fixed-point and coincidence theorems (topological aspects)

Keywords:

fixed point; multivalued mapping; M -metric space

Full Text: DOI

References:

- [1] Adamo, MS; Vetro, C., Fixed point and homotopy results for mixed multi-valued mappings in 0-complete partial metric spaces, *Nonlinear Anal. Model. Control*, 20, 159-174, (2015) · Zbl 1420.54060
- [2] Altun, I.; Minak, G.; Olgun, M., Fixed points of multivalued nonlinear (F) -contractions on complete metric spaces, *Nonlinear Anal. Model. Control*, 21, 201-210, (2016) · Zbl 1353.54028
- [3] Altun, I.; Sahin, H.; Turkoglu, D., Fixed point results for multivalued mappings of Feng-Liu type on (M) -metric spaces, *J. Nonlinear Funct. Anal.*, 2018, 1-8, (2018)
- [4] Asadi, M.; Karapinar, E.; Salimi, P., New extension of (p) -metric spaces with some fixed point results on (M) -metric spaces, *J. Inequal. Appl.*, 2014, 18, (2014) · Zbl 1414.54015
- [5] Banach, S., Sur les opérations dans les ensembles abstraits et leur application aux équations intégrales, *Fundam. Math.*, 3, 133-181, (1922) · Zbl 48.0201.01
- [6] Ćirić, L., Fixed point theorems for multi-valued contractions in complete metric spaces, *J. Math. Anal. Appl.*, 348, 499-507, (2008) · Zbl 1213.54063
- [7] Cosentino, M.; Jleli, M.; Samet, B.; Vetro, C., Solvability of integrodifferential problems via fixed point theory in (b) -metric spaces, *Fixed Point Theory Appl.*, 2015, 70, (2015) · Zbl 06585788
- [8] Dag, H.; Minak, G.; Altun, I., Some Fixed point results for multivalued (F) -contractions on quasi metric space, *Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matemáticas*, 111, 177-187, (2017) · Zbl 1356.54043
- [9] Feng, Y.; Liu, S., Fixed point theorems for multi-valued contractive mappings and multi-valued Caristi type mappings, *J. Math. Anal. Appl.*, 317, 103-112, (2006) · Zbl 1094.47049
- [10] Nadler, SB, Multi-valued contraction mappings, *Pac. J. Math.*, 30, 475-488, (1969) · Zbl 0187.45002
- [11] Olgun, M.; Minak, G.; Altun, I., A new approach to Mizoguchi Takahashi type fixed point theorems, *J. Nonlinear Convex Anal.*, 17, 579-587, (2016) · Zbl 1352.54034
- [12] Piri, H.; Kumam, P., Some fixed point theorems concerning (F) -contraction in complete metric spaces, *Fixed Point Theory Appl.*, 2014, 210, (2014) · Zbl 1371.54184
- [13] Sgrio, M.; Vetro, C., Multi-valued (F) -contractions and the solution of certain functional and integral equations, *Filomat*, 27, 1259-1268, (2013) · Zbl 1340.54080
- [14] Shoaib, M., Sarwar, M.: Multivalued fixed point theorems for generalized contractions and their applications. *J. Math.* \textbf{2016}, 8. <https://doi.org/10.1155/2016/5190718> · Zbl 07037556
- [15] Wardowski, D., Fixed points of a new type of contractive mappings in complete metric spaces, *Fixed Point Theory Appl.*, 2012, 94, (2012) · Zbl 1310.54074

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