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Some fixed point results for multivalued F -contractions on quasi metric spaces. (English)

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Summary: In the present paper, taking into account recent contractive technique, which is called F -contraction, we provide some new fixed point results for multivalued mapping on some kind of complete quasi metric spaces.

MSC:

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

47H10 Fixed-point theorems

Cited in 7 Documents

Keywords:

quasi metric space; left K -Cauchy sequence; left \mathcal{K} -completeness; fixed point; multivalued mapping

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References:

- [1] Alemany, E; Romaguera, S, On half-completion and bicompletion of quasi-metric spaces, Comment. Math. Univ. Carol., 37, 749-756, (1996) · Zbl 0886.54027
- [2] Alemany, E; Romaguera, S, On right K -sequentially complete quasi-metric spaces, Acta Math. Hung., 75, 267-278, (1997) · Zbl 0924.54037
- [3] Altun, I., Durmaz, G., Minak, G., Romaguera, S.: Multivalued almost FS -contractions on complete metric spaces, Filomat (2014) (In press) · Zbl 06749699
- [4] Altun, I; Minak, G; Dağ, H, Multivalued FS -contractions on complete metric space, J. Nonlinear Convex Anal., 16, 659-666, (2015) · Zbl 1315.54032
- [5] Altun, I., Olgun, M., Minak, G.: A new approach to the Assad-Kirk fixed point theorem. J. Fixed Point Theory Appl. (2015). doi:10.1007/s11784-015-0270-z · Zbl 1353.54028
- [6] Altun, I., Olgun, M., Minak, G.: Classification of completeness of quasi metric space and some new fixed point results. (2015) (Submitted) · Zbl 1378.54041
- [7] Altun, I; Olgun, M; Minak, G, On a new class of multivalued weakly Picard operators on complete metric spaces, Taiwan. J. Math., 19, 659-672, (2015) · Zbl 1315.54032
- [8] Cobzaş, S, Completeness in quasi-metric spaces and Ekeland variational principle, Topol. Appl., 158, 1073-1084, (2011) · Zbl 1217.54026
- [9] Cobzaş, S.: Functional analysis in asymmetric normed spaces. Springer, Basel (2013) · Zbl 1266.46001
- [10] Cosentino, M., Jleli, M., Samet, B., Vetro, C.: Solvability of integrodifferential problems via fixed point theory in b-metric spaces. Fixed Point Theory Appl. \textbf{2015}, 70, 15 (2015) · Zbl 06585788
- [11] Cosentino, M; Vetro, P, Fixed point results for FS -contractive mappings of Hardy-Rogers-type, Filomat, 28, 715-722, (2014) · Zbl 06704795
- [12] 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
- [13] Fletcher, P., Lindgren, W.F.: Quasi-Uniform Spaces. Dekker, New York (1982) · Zbl 0501.54018
- [14] Kelly, JC, Bitopological spaces, Proc. Lond. Math. Soc., 13, 71-89, (1963) · Zbl 0107.16401
- [15] Künzi, HPA; Aull, CE (ed.); Lowen, R (ed.), Nonsymmetric distances and their associated topologies: about the origins of basic ideas in the area of asymmetric topology, No. 3, 853-968, (2001), Dordrecht · Zbl 1002.54002
- [16] Künzi, HPA; Vajner, V, Weighted quasi-metrics, Ann. N. Y. Acad. Sci., 728, 64-67, (1994) · Zbl 0915.54023
- [17] Minak, G; Olgun, M; Altun, I, A new approach to fixed point theorems for multivalued contractive maps, Carpathian J. Math., 31, 241-248, (2015) · Zbl 1349.54111
- [18] Piri, H., Kumam, P.: Some fixed point theorems concerning FS -contraction in complete metric spaces. Fixed Point Theory Appl. \textbf{2014}, 210, 11 (2014) · Zbl 1371.54184
- [19] Reilly, IL; Subrahmanyam, PV; Vamanamurthy, MK, Cauchy sequences in quasi- pseudo-metric spaces, Monatsh. Math., 93,

127-140, (1982) · [Zbl 0472.54018](#)

- [20] Romaguera, S, Left K -completeness in quasi-metric spaces, Math. Nachr., 157, 15-23, (1992) · [Zbl 0784.54027](#)
- [21] Romaguera, S., Gutiérrez, A.: A note on Cauchy sequences in quasipseudometric spaces. Glas. Mat. Ser. III **21**(41) (1), 191-200 (1986) · [Zbl 0606.54025](#)
- [22] 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](#)
- [23] Wardowski, D.: Fixed points of a new type of contractive mappings in complete metric spaces. Fixed Point Theory Appl. **2012**, 94, 6 (2012) · [Zbl 1310.54074](#)

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