

**Some fixed point results of single-valued mapping for c-distance
in TVS-cone metric spaces**

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Abstract: The purpose of this paper is to prove some fixed point theorems in a tvs-cone metric space using c-distances. The presented theorems extend, generalize and improve the corresponding results of Fadail et al. [10], Dordevic et al [8] and the results cited therein. In the last section, we give an example in support of our theorems.

Keywords: TVS-cone metric Spaces, c-distance, w-distance.

References:

- [1] M. Abbas, G. Jungck, Common fixed point results for non-commuting mappings without continuity in cone metric spaces, *Jour. Math. Anal. Appl.*, 341, pp. 416-420, 2008.
- [2] M. Abbas, B. E. Rhoades, Fixed and periodic point results in cone metric spaces, *Appl. Math. Lett.* 22, pp. 511-515, 2009.
- [3] Th. Abdeljawad, Sh. Rezapour, On some topological concepts of tvs-cone metric spaces and fixed point theory remarks, arXiv, 1102.1419v1[math.GN].
- [4] A Azam, M. Arshad, Common fixed points of generalized contractive maps in cone metric spaces, *Iran. Math. Soc.*, vol. 35 (2) 2009, 255-264.
- [5] A. Azam, I. Beg, and M. Arshad, Fixed points in topological vector space valued cone metric spaces, *Fixed Point Theory Appl.*, 9 (2010), Article ID 604084, doi:10.1155/2010/604084, 2010.
- [6] Y.J. Cho, R. Saadati, and S. Wang, Common fixed point theorems on generalized distance in ordered cone metric spaces, *Computer and Mathematics with Applications*, vol. 61 (4), pp. 1254-1260, 2011.
- [7] Y.J. Cho, Z. Kadelburg, R. Saadati, and W. Shatanawi, Coupled fixed point theorems under weak contractions, *Discrete Dynamics in Nature and Society*, vol 2012, Article ID 184534, 9 pages, 2012.
- [8] M. Dordevic, D. Doric, Z. Kadelburg, S. Radenovic, and D. Spasic, Fixed point results under c-distance in TVS-cone metric spaces, *FPTA*, vol. 2011, Article 29, 2011.
- [9] W.S. Du, A note on cone metric Fixed point theory and its equivalence, *Nonlinear Anal.*, Vol. 72, pp. 2259-2261, doi: 10.1016/j.na.2009.10.026, 2010.

[10] Z.M. Fadail, A.G.B. Ahmad, and L. Paunovic, New fixed point results of single valued mapping for c-distance in cone metric spaces, *Abst. and Appl. Anal.*, vol 2012, Article ID 639713, 12 pages, doi: 10.1155/2012/639713, 2012.