

## HOMOTOPY TYPE RESULTS FOR MAPS WITH WEAKLY SEQUENTIALLY CLOSED GRAPHS

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**Abstract.** In this paper we present fixed point results and a homotopy property for maps with weakly sequentially closed graphs.

**Keywords.** Fixed point theorem; maps with weakly sequentially closed graphs; homotopy.

**AMS (MOS) subject classification:** 47H10, 47H04.

## References

- [1] R.P. Agarwal and D. O'Regan, Fixed point theory for set valued mappings between topological vector spaces having sufficiently many linear functionals, *Computers and Mathematics with Applications*, **41**, (2001) 917-928.
- [2] R.P. Agarwal and D. O'Regan, Homototy results for weakly sequentially upper semicontinuous maps, *Nonlinear Functional Analysis and Applications*, **8**, (2003) 111-122.
- [3] R.P. Agarwal, D. O'Regan and M.A. Taoudi, Fixed point theorems for condensing mappings under weak topology features, *Fixed Point Theory*, **12**, (2011) 247-254.
- [4] C.D. Aliprantis and K.C. Border, Infinite Dimensional Analysis, Springer Verlag, Berlin, 1994.
- [5] N. Dunford and J.T. Schwartz, Linear Operators: Part I, General Theory, Intersci. Publ., New York, 1985.
- [6] R.E. Edwards, Functional Analysis, Theory and Applications, Holt, Rinehart and Winston, 1965.
- [7] K. Floret, Weakly compact sets, *Lecture Notes Math.*, **801**, (1980) 1-123.
- [8] C.J. Himmelberg, Fixed points of compact multifunctions, *Jour. Math. Anal. Appl.*, **38**, (1972) 205-207.
- [9] D. O'Regan, Homototy results for admissible multifunctions, *Nonlinear Functional Analysis and Applications*, **6**, (2001) 217-228.

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