Multivalued contractions of Feng-Liu type in complete gauge spaces

ADRIAN PETRUŞEL and GABRIELA PETRUŞEL

ABSTRACT.

The purpose of this article is to present some fixed point results for multivalued contractions of Feng-Liu type on a complete gauge space.

REFERENCES

[1] Agarwal, R. P., Dshalalow, J. and O'Regan, D., *Fixed point and homotopy results for generalized contractive maps of Reich-type*, Applied Anal. **82** (2003), 329–350

[2] Berinde, V. and Păcurar, Mădălina, *Fixed points and continuity of almost contractions*, Fixed Point Theory **9** (2008), 23–34

[3] Dugundji, J., *Topology*, Allyn & Bacon, Boston, 1966

[4] Espínola, R. and Petruşel, A., *Existence and data dependence of fixed points for multivalued operators on gauge spaces*, J. Math. Anal. Appl. **309** (2005), 420–432

[5] Feng, Y. and Liu, S., *Fixed point theorems for multivalued contractive mappings and multivalued Caristi's fixed point theorems*, J. Math. Anal. Appl **317** (2006), 103–112

[6] Frigon, M., Fixed point results for multivalued contractions in gauge spaces and applications, in *Set Valued Mappings with Applications in Nonlinear Analysis, Ser. Math. Anal. Appl.*, **4**, Taylor & Francis, London, 2002, 175–181

[7] Frigon, M., *Fixed point and continuation results for contractions in metric and gauge spaces*, Banach Center Publ. **77** (2007), 89–114

[8] Lazăr, T., O'Regan, D. and Petruşel, A., *Fixed points and homotopy results for Ćirić -type multivalued operators on a set with two metrics*, Bull. Korean Math. Soc. **45** (2008), 67–73

[9] O'Regan, D., Agarwal, R. P. and Jiang, D., *Fixed point and homotopy results in uniform spaces*, Bull. Belg. Math. Soc. **10** (2003), 289–296

[10] Petruşel, A., *Multivalued weakly Picard operators and applications*, Scientiae Mathematicae Japonicae **59** (2004), 169–202

[11] Petruşel, A., Rus, I. A. and Yao, J.-C., *Well-posedness in the generalized sense of the fixed point problems for multivalued operators*, Taiwanese J. Math. **11** (2007), 903–914

[12] Rus, I. A., *The theory of a metrical fixed point theorem: theoretical and applicative relevances*, Fixed Point Theory **9** (2008), 541–559

BABEŞ-BOLYAI UNIVERSITY
DEPARTMENT OF APPLIED MATHEMATICS
KOGĂLNICEANU 1, CLUJ-NAPOCA, ROMANIA
E-mail address: `petrusel@math.ubbcluj.ro`

BABEŞ-BOLYAI UNIVERSITY
DEPARTMENT OF BUSINESS
HOREA 7, CLUJ-NAPOCA, ROMANIA
E-mail address: `gabip@math.ubbcluj.ro`