LEFSCHETZ-TYPE FIXED POINT THEOREMS
FOR SPHERIC MAPPINGS

JAN ANDRES* AND LECH GÓRNIEWICZ**

*Department of Mathematical Analysis and Applications of Mathematics
Faculty of Science, Palacký University
17. Listopadu 12, 771 46 Olomouc, Czech Republic
E-mail: jan.andres@upol.cz

**Institute of Mathematics, University of Kazimierz Wielki, Weyssenhoffa 11,
85-072 Bydgoszcz, Poland
E-mail: gorn@mat.umk.pl

Dedicated to Professor Ioan A. Rus on the occasion of his 80th birthday

Abstract. Deterministic as well as random Lefschetz-type fixed point theorems are formulated for
multivalued spheric maps on various sorts of special retracts in a Euclidean space.

Key Words and Phrases: Lefschetz theorem, fixed points, spheric mappings, random operators,
retracts.

2010 Mathematics Subject Classification: 55M20, 47H10, 47H04, 47H40.

Acknowledgements. The first author was supported by the grant No. 14-06958S
“Singularities and impulses in boundary value problems for nonlinear ordinary differential equations” of the Grant Agency of the Czech Republic.

References


[3] J. Andres, L. Górniewicz, On the Lefschetz fixed point theorem for random multivalued mapp-


de vecteurs sphériques dans les espaces de Banach, Dissertationes Math., Warsaw, Poland,

Math., 129(1976), Warsaw, Poland.


*Received: June 7, 2016; Accepted: August 30, 2016.*