

THE RELATIONSHIP BETWEEN DIFFERENT SEPARATION
NOTIONS ON L -TOPOLOGICAL SPACES

BAYAZ DARABY

Abstract. In the present paper we study the smooth topology and its equivalent L -topology, the corresponding L -continuous, L -open, and homeomorphism maps. We also study the concept of several separation axioms (like ST_0 , ST_1 , ST_2 , and their strong and weak forms on the mentioned topology). Finally we investigate some of their properties and the relations between them.

MSC 2010. 39B72, 47H09.

Key words. L -topological space, smooth topology, separation axioms.

REFERENCES

- [1] BADARD, R., *Smooth axiomatics*, The 1st IFSA Congress, Palma de Mallorca, July 1986.
- [2] CHANG, C.L., *Fuzzy topological spaces*, J. Math. Anal. Appl., **24** (1968) 182-193.
- [3] EL-GAYYAR, M.K., KERRE, E.E. and RAMADAN, A.A., *On smooth topological spaces II: separation axioms*, Fuzzy Sets and Systems, **119** (2001) 495-504.
- [4] GHANIM, M.H., KERRE, E.E. and MASHHOUR, A.S., *Separation axioms, subspaces and sums in fuzzy topology*, J. Math. Anal. Appl., **102** (1984) 189-202.
- [5] HUTTON, B., *Normality in fuzzy topological spaces*, J. Math. Anal. Appl., **50** (1975) 74-79.
- [6] RAMADAN, A.A., *Smooth topological space*, Fuzzy Sets and Systems, **48** (1992) 371-375.
- [7] ZHANG, J., SHI, F.G. and ZHENG, C.Y., *On L -fuzzy topological spaces*, Fuzzy Sets and Systems, **149** (2005), 473-484.

University of Maragheh
Department of Mathematics
Maragheh, Iran
E-mail: bayazdaraby@yahoo.com