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ON QUASI S-TOPOLOGICAL IP-LOOPS

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Abstract. In this paper, we have investigated that in what manner separately semi-continuous multiplication and semi continuous inverse mappings of topological spaces are defined over loops, in particular, over IP-loops. We have also constructed an example of quasi s-topological IP-loops by using zero dimensional additive metrizable perfect topological IP-loop L^* with relative topology $\tau_{L'}$.

1. Introduction

With the introduction of semi open set by N. Levine, many of the mathematicians examined and explored several concepts by using semi continuity and semi open sets [8, 17, 19]. A number of new results are obtained when open set is replaced by semi open set and continuity is replaced by semi continuity [6, 10, 12, 22].

N. Levine defined semi open set as: A subset M of X is semi open, if there is an open set O in X such that

$$O \subseteq M \subseteq Cl(O)$$

or

$$M \subseteq Cl(Int(M)).$$

The collection of all semi open sets in X is denoted by $SO(X)$ and $SO(X,t)$ denotes the collection of all semi open sets containing t.

A point $t \in X$ is a semi interior point of M, if there exists a semi open set M' such that

$$t \in M' \subseteq M.$$

$sInt(M)$ is the set of all semi interior points of M. For any semi open set M_t, $t \in sCl(M')$ if and only if $M_t \cap M' \neq \phi$ [1].

A mapping $f : X \to Y$ is said to be

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