1044-54-115 **Wladyslaw Kulpa** and **Andrzej Szymanski*** (andrzej.szymanski@sru.edu), Department of Mathematics, Slippery Rock University, Slippery Rock, PA 16057. *On L^*-spaces.*

An *L^*-operator* on a topological space X is a function $\Lambda : [X]^{<\omega} - \{\varnothing\} \to 2^X$ satisfying the following condition:

($*$) If $A \in [X]^{<\omega} - \{\varnothing\}$ and $\{U_x : x \in A\}$ is an open cover of X, then there exists $\varnothing \neq B \subseteq A$ such that $\Lambda(B) \cap \bigcap \{U_x : x \in B\} \neq \varnothing$.

The family $\mathbf{Con}(\Lambda) = \left\{Y \subseteq X : \Lambda(B) \subseteq Y \text{ for each } B \in [Y]^{<\omega} - \{\varnothing\}\right\}$ is a convexity structure on X. It constitutes a proper generalization of well exploited *L-structures* defined by Ben-El-Mechaiekh, Chebbi, and Florenzano in 1998. We show that if X is a connected LOTS, then $\Lambda(A) = [\min A; \max A]$ defines an *L^*-operator* on X and that the convexity structure $\mathbf{Con}(\Lambda)$ cannot be an *L-structure* in case X is a connected Souslin line. We prove fixed point and equilibrium theorems for spaces that admit continous *L^*-operators. (Received August 26, 2008)