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On the $E_s$-compactness in LF topological spaces. (Chinese. English summary) Zbl 07366893

Summary: In this paper, the concept of $E_s$-compactness is introduced into in LF topological spaces by using $\alpha - E_s$ remote neighborhoods family, which results in $E_s$-compact spaces. Besides, three kinds of equivalent characterizations of $E_s$-compact spaces are described, with $E_s$-compactness being proved to be $L$-good generalization. What’s more, some basic properties of $E_s$-compact spaces are also discussed in this paper, such as $E_s$ closed heredity and weak $E_s$ homeomorphic invariant property.

MSC:
54D30 Compactness
54A40 Fuzzy topology

Keywords:
$LF$ topological spaces; $\alpha - E_s$ remote neighborhoods family; $E_s$-compact spaces; $r - E_s$ cover; $r$-finite intersection property