

A COMMON MAXIMAL ELEMENT OF CONDENSING MAPPINGS

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Abstract. In this paper, we establish a general existence theorem of maximal elements of condensing mappings in the product $X := \prod_{\alpha \in I} X_\alpha$ of noncompact *l.c.*-spaces. As an application, we prove that

a family of \mathcal{L}_{π_α} -majorized Q_α -condensing mappings $T_\alpha : X \rightarrow 2^{X_\alpha}$ admit a common maximal element under the mild condition that each $\{x \mid T_\alpha(x) \neq \emptyset\}$ is compactly open.

Key Words and Phrases: *l.c.*-space, Q_α -condensing mapping, maximal element, \mathcal{L}_θ -majorized.

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