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Abstract. A linearly ordered extension of a GO-space X is a LOTS L such that the LOTS L contains the GO-space X as a subspace and the order $<_L$ on L extends the order $<_X$ on X; moreover, if X is dense in L, then L is called a linearly ordered d-extension. A linearly ordered compactification of a GO-space X is a compact linearly ordered d-extension of X. We will visualize all linearly ordered compactifications of a given GO-space in a certain way. For a given linearly ordered set $\langle X, <_X \rangle$, $\mathbb{L}_X$ denotes the class of all linearly ordered compactifications of GO-spaces whose underlying linearly ordered set is $\langle X, <_X \rangle$. We will also see the partial order structure $\langle \mathbb{L}_X, \leq \rangle$, where $L_0 \leq L_1$ if there is a continuous map $f : L_1 \to L_0$ such that $f(x) = x$ for every $x \in X$, is order isomorphic to the product $\langle \mathcal{P}(A), \subseteq \rangle \times \langle \mathcal{P}(B), \subseteq \rangle \times \langle \mathcal{P}(C), \subseteq \rangle$ for some sets A, B, and C, where $\langle \mathcal{P}(A)), \subseteq \rangle$ denotes the partial ordered set of the set of all subsets of A with the usual inclusion. The sets A, B, and C will be described exactly. Moreover, we will see that the partial order structure on the class of all linearly ordered compactifications of a fixed GO-space depends only on its underlying linearly ordered set, not on its topology.

1. Introduction

We assume that all topological spaces have cardinality at least 2. At first, we give precise definitions for later arguments.

A linearly ordered set $\langle L, <_L \rangle$ (see [1]) has a natural T_2-topology $\lambda(<_L)$ called the *interval topology* which is the topology generated by $\{(\leftarrow, u)_L :$

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