Compact topological spaces edit

Abbreviation: KTop

Definition 1. A *compact topological space* is a topological space $\mathbf{X} = \langle X, \Omega\rangle$ that is *compact*: every open cover has a finite subcover, i.e., $\forall\mathcal{C} \subseteq \Omega(\bigcup\mathcal{C} = X \implies \exists n, \exists C_0, \dots, C_{n-1} \in \mathcal{C}(C_0 \cup \cdots \cup C_{n-1} = X))$

Remark: This is a template. If you know something about this class, click on the "Edit text of this page" link at the bottom and fill out this page.

It is not unusual to give several (equivalent) definitions. Ideally, one of the definitions would give an irredundant axiomatization that does not refer to other classes.

Morphisms. Let $\mathbf{X}$ and $\mathbf{Y}$ be compact topological spaces. A morphism from $\mathbf{X}$ to $\mathbf{Y}$ is a function $h : X \to Y$ that is a continuous: $\forall V \in \Omega_{\mathbf{Y}}(h^{-1}[Y] \in \Omega_{\mathbf{X}})$

Definition 2. A ... is a structure $\mathbf{A} = \langle A, ...\rangle$ of type $\langle ...\rangle$ such that

... is ...: *axiom*

... is ...: *axiom*

Basic Results.

Examples.

1.

Properties. (description)
Feel free to add or delete properties from this list. The list below may contain properties that are not relevant to the class that is being described.

Classtype	second-order
Amalgamation property	
Strong amalgamation property	
Epimorphisms are surjective	

Subclasses.

Compact Hausdorff topological spaces

Superclasses.

Topological spaces

References

[1] F. Lastname, *Title*, Journal, **1**, 23–45 MRreview