

# Boolean spaces edit

## Abbreviation: BSp

**Definition 1.** A *Boolean space* is a compact Hausdorff topological space  $\mathbf{X} = \langle X, \Omega \rangle$  that is *totally disconnected*:

any two distinct points are separated by a clopen set ( $\forall x \neq y \in X \exists U \in \Omega (x \in U \text{ and } y \in X \setminus U \in \Omega)$ ).

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

## Basic Results.

## Examples.

1.

## Properties. (description)

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

**Finite Members.** All finite discrete topological spaces.

## Subclasses.

... subvariety

... expansion

## Superclasses.

... supervariety

... subreduct

## REFERENCES

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