

Year: 2011

Vol.: 78

Fasc.: 1

**Title:** On categories of ordered sets with a closure operator

**Author(s):** Josef Šlapal

We define and study two categories of partially ordered sets endowed with a closure operator. The first category has order-preserving and continuous maps as morphisms and it is shown to be concretely isomorphic to a category of ordered sets endowed with a compatible preorder. The second category has closed maps as morphisms and it is proved to be cartesian closed. Consequences of these results for categories of closure spaces and, in particular, of topological spaces are discussed.

**Address:**

Josef Šlapal  
Department of Mathematics  
Brno University of Technology  
616 69 Brno  
Czech Republic