**Watson, Stephen**; **Weiss, William**

**A topology on the union of the double arrow space and the integers.** (English) Zbl 0632.54023

Topology Appl. 28, No. 2, 177-179 (1988).

We construct a topology on the union of the double arrow space (Cantor set version) and the integers which is a hereditarily Lindelöf hereditarily separable 0-dimensional compact Hausdorff space but not the continuous image of a closed subspace of the product of the double arrow space and the closed unit interval (answering a question of Fremlin).

**MSC:**

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|---|---|
| 54G20 | Counterexamples in general topology |
| 54D20 | Noncompact covering properties (paracompact, Lindelöf, etc.) |
| 54F05 | Linearly ordered topological spaces, generalized ordered spaces, and partially ordered spaces |
| 54D30 | Compactness |
| 54C05 | Continuous maps |



**Keywords:**

two arrow space; double arrow space; hereditarily Lindelöf hereditarily separable 0-dimensional compact Hausdorff space; closed unit interval

**Full Text:** DOI

**References:**

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