

Hdeib, H. Z. ω -closed mappings. (English) Zbl 0574.54008

Rev. Colomb. Mat. 16, 65-78 (1982).

The concepts of ω -closed set, ω -closed mapping and P^* -spaces are defined and the following are the main results: (a) Let f be a continuous ω -closed mapping of a space X onto a space Y such that $f^{-1}(y)$ is Lindelöf for each Y' in Y . Then X is Lindelöf if Y is so. (b) Let f be a continuous ω -closed mapping of a regular space X onto a space Y . Then X is paracompact (strongly paracompact) if Y is paracompact (strongly paracompact) and for each y in Y , $f^{-1}(y)$ is paracompact relative to X (Lindelöf). (c) Let X be a Lindelöf space and Y be a P^* -space, then the projection $P : X \times Y \rightarrow Y$ is an ω -closed mapping. Hence, $X \times Y$ is Lindelöf (paracompact, strongly paracompact) if and only if Y is so.

MSC:**54C10** Special maps on topological spaces (open, closed, perfect, etc.)**54D20** Noncompact covering properties (paracompact, Lindelöf, etc.)Cited in **2** Reviews
Cited in **24** Documents**Keywords:** ω -closed set; ω -closed mapping; P^* -spaces**Full Text:** [EuDML](#)