Summary: Let $\tau$ be an uncountable cardinal. We prove that if $\mathcal{A}$ is a cover of the Tychonoff cube $I^\tau$ such that $|\mathcal{A}| \leq \tau$, then some element $A \in \mathcal{A}$ is not homeomorphic to a topological group.

MSC:

- 54D35 Extensions of spaces (compactifications, supercompactifications, completions, etc.)
- 54D40 Remainders in general topology
- 54A25 Cardinality properties (cardinal functions and inequalities, discrete subsets)

Keywords:

- Tychonoff cube;
- topological group;
- covering

Full Text: DOI

References:


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