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Two spaces homeomorphic to $Seq(p)$

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Abstract: We consider the spaces called $Seq(u_t)$, constructed on the set Seq of all finite sequences of natural numbers using ultrafilters u_t to define the topology. For such spaces, we discuss continuity, homogeneity, and rigidity. We prove that $S(u_t)$ is homogeneous if and only if all the ultrafilters u_t have the same Rudin-Keisler type. We proved that a space of Louveau, and in certain cases, a space of Sirota, are homeomorphic to $Seq(p)$ (i.e., $u_t = p$ for all $t \in Seq$). It follows that for a Ramsey ultrafilter p, $Seq(p)$ is a topological group.

Keywords: ultrafilters, continuity, homeomorphisms, homogeneous, rigid, topological group, Ramsey ultrafilters, selective ultrafilters
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