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***The ambient homeomorphy of certain function and sequence spaces***

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**Abstract:** In this paper we consider a number of sequence and function spaces that are known to be homeomorphic to the countable product of the linear space  $\sigma$ . The spaces we are interested in have a canonical imbedding in both a topological Hilbert space and a Hilbert cube. It turns out that when we consider these spaces as subsets of a Hilbert cube then there is only one topological type. For imbeddings in the countable product of lines there are two types depending on whether the space is contained in a  $\sigma$ -compactum or not.

**Keywords:** Hilbert space, Hilbert cube,  $\mathcal{F}_{\sigma\delta}$ -absorber, ambient homeomorphism, function space,  $p$ -summable sequence

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