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Universal topological vector spaces
by
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Abstract

We shall survey several recent constructions of certain topological vector spaces that have interesting properties concerning universality and homogeneity. In the class of separable Banach spaces such a universal object is the Gurarii space, discovered in 1966. We shall discuss its analogues in classes like Frechet spaces, p-Banach spaces, and non-Archimedean Banach spaces. The results come from joint works with C. Bargetz, J. Cabello Sanchez, J. Garbulinska-Wegrzyn, J. Kakol, and A. Kubzdela.