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LINEAR TOPOLOGIC INVARIANTS AND THEIR APPLICATIONS TO ISOMORPHIC CLASSIFICATION OF GENERALIZED POWER SPACES

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Abstract: In the present survey generalized linear topological invariants are considered as a development of classical invariants of Kolmogorov and Pelczynski (approximative and diametral dimensions). It is realized a geometric idea to construct some new invariant characteristics by applying of classical characteristics (diameter or entropy-like characteristics) to some symplest interpolational constructions under neighborhoods, taken from a given basis of neighborhoods of zero. It is considered various applications to isomorphic classification of generalized power K\"{o}the spaces (in particular, tensor products of finite and infinite type power series spaces, spaces of analytic and infinitely differentiable vector-valued functions, spaces of analytic functions of several variables.