

Dimension-like invariants, their usage and computation.

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Abstract: We shall speak about dimension-like invariants of covering type and of the type of big inductive dimension. Dimension-like invariants of the first type are δ -dimension of Yu. Smirnov, δd_μ -dimension of J. Isbell, uniform dimension μ -dim of M. Charalambous, relative dimension $d(X, Y)$ of A. Chigogidze and covering dimension $d(X, \mathcal{F})$ by the normal base \mathcal{F} of S. Iliadis. Dimension-like invariants of the second type are uniform dimension μ -Ind of M. Charalambous, relative dimension $I(X, Y)$ of A. Chigogidze, their special case dimension Ind_0 of V. Filippov and M. Charalambous and big inductive dimension $I(X, \mathcal{F})$ by the normal base \mathcal{F} of S. Iliadis.

The properties of dimension-like invariants will be described and connection with dimensions of compactifications will be shown. Examples of their usage in computing classical dimensions will be given and problems will be formulated.