Topological invariants, diametral dimension, and one related question

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Diametral dimension is a topological invariant for topological vector spaces which appears to be useful to characterize some classical classes of locally convex spaces (Schwartz, nuclear spaces).

In this talk, we first introduce the notion of Kolmogorov's diameters to define the diametral dimension of a topological vector space. We also consider some simple properties of these concepts. Then, we focus on an open question concerning the equality of the diametral dimension with one of its variants.