An open question about diametral dimensions

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The diametral dimension is a topological invariant which characterizes Schwartz and nuclear spaces. However, there exists another diametral dimension which was conjectured by Bessaga, Mityagin, Pełczyński, and Rolewicz to be equal to the first one in Fréchet spaces.
In this talk, we describe some conditions which assure the equality of the two diametral dimensions in metrizable locally convex spaces. Besides, we explain why such an equality is generally impossible in non-metrizable spaces.