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"The Plichko property in Lipschitz-free spaces"

A Banach space X is said to be *Plichko* if there exists a linearly dense subset Δ in X, and a norming subspace N in X^* such that every functional in N is countably supported in Δ. The class of Banach spaces with this property has been widely studied in the context of non-separable Banach spaces, and contains strictly the class of Weakly Lindelöff Determined (WLD) spaces. Non-separable Lipschitz-free spaces always contain non-separable $\ell_1(\Gamma)$ spaces (as shown by Hájek and Novotny), and thus fail to be WLD. However, there is currently no known example of a Lipschitz-free space which fails to be Plichko. In this talk, we explore this topic, focusing on the witnesses of this property in those Lipschitz-free spaces which are known to enjoy it, and relating said property to well-known open questions in the field of Non-Linear Banach Space Geometry.