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"On large ℓ_1-sums of Lipschitz-free spaces and applications"

We prove that the Lipschitz-free space over a Banach space X of density κ, denoted by $\mathcal{F}(X)$, is linearly isomorphic to its ℓ_1-sum $(\bigoplus_\kappa \mathcal{F}(X))_{\ell_1}$. This provides an extension of a previous result from Kaufmann in the context of non-separable Banach spaces. Further, we obtain a complete classification of the spaces of real-valued Lipschitz functions that vanish at 0 over a $\mathcal{L}_p$-space. More precisely, we establish that, for every $1 \leq p \leq \infty$, if X is a $\mathcal{L}_p$-space of density κ, then $\mathrm{Lip}_0(X)$ is either isomorphic to $\mathrm{Lip}_0(\ell_p(\kappa))$ if $p < \infty$, or $\mathrm{Lip}_0(c0(\kappa))$ if $p = \infty$.

Work in joint with Hector T. Guzmán.