

# DUAL AND BIDUAL OCTAHEDRAL NORMS IN LIPSCHITZ-FREE SPACES

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ABSTRACT. We continue with the study of octahedral norms in the context of spaces of Lipschitz functions and in their duals. First, we prove that the norm of  $\mathcal{F}(M)^{**}$  is octahedral as soon as  $M$  is unbounded or is not uniformly discrete. Further, we prove that a concrete sequence of uniformly discrete and bounded metric spaces  $(K_m)$  satisfies that the norm of  $\mathcal{F}(K_m)^{**}$  is octahedral for every  $m$ . Finally, we prove that if  $X$  is an arbitrary Banach space and the norm of  $\text{Lip}_0(M)$  is octahedral, then the norm of  $L(X, \text{Lip}_0(M))$  is octahedral. These results solve several open problems from the literature. The talk is based on a joint work with Abraham Rueda Zoca.