

## FACTORIZATION OF LIPSCHITZ OPERATORS ON BANACH FUNCTION SPACES

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*Abstract.* Let  $(X, d)$  be a pointed metric space. Let  $T: X \rightarrow Y_1(\mu)$  and  $S: X \rightarrow Y_2(\mu)$  be two Lipschitz operators into two Banach function spaces  $Y_1$  and  $Y_2$  over the same finite measure  $\mu$ . We show which are the vector norm inequalities that characterize those  $T$  and  $S$  for which  $T = M_g \circ S$ , for some multiplication operator  $M_g: Y_2 \rightarrow Y_1$ . Our ideas give rise to Maurey-Rosenthal type factorization results for Lipschitz operators. We provide some applications on the Lipschitz structure of metric subsets of Banach function spaces.

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