Summer School 2026

Topics in Banach Space Theory

Lipschitz spaces over sets of positive measure

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Abstract

For a complete metric space X, the Lipschitz space $\mathrm{Lip}_0(X)$ is the Banach space of all real-valued Lipschitz functions on X that vanish at a prespecified point of X, endowed with the Lipschitz constant as the norm. A common topic in related research is determining sufficient conditions for a subset M of X to be "large enough" that the spaces $\mathrm{Lip}_0(M)$ and $\mathrm{Lip}_0(X)$ are isomorphic. In this talk, I will focus on the case $X = \mathbb{R}^n$ and show that we have isomorphism as soon as $M \subset \mathbb{R}^n$ has positive n-dimensional measure, or more generally, as soon as it is not porous.