SMOOTH AND LIPSCHITZ APPROXIMATION OF FUNCTIONS DEFINED ON METRIC MEASURE SPACES.

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Abstract. In this talk we will revise some of the classical results on smooth and Lipschitz approximation of functions defined on $\mathbb{R}^n$ and Banach spaces and will provide a first approach to the problem when the domain of the function is a metric measure space endowed with a measure differentiable structure (MDS). In particular, we explore density of differentiable functions defined from a metric measure space with a MDS into a Banach space.

New results here presented are part of a joint work with Luis Snchez Gonzlez.