REGULARITY OF 1D ALMOST MINIMAL SETS IN BANACH SPACES.

ANTOINE LEMENANT
UNIVERSITÉ PARIS DIDEROT, FRANCE.

ABSTRACT. I will talk about a joint work with Thierry De Pauw (Paris 7, IMJ) and Vincent Millot (Paris 7, LJLL), which contains some local regularity results for 1D almost minimal sets in Banach spaces. A 1D-almost minimal set is a closed and connect set that locally minimizes the Hausdorff measure H^1, up to an excess controlled by some gauge function $\xi(r)$ in a ball of radius r. It is well known that such sets are C^1 regular almost everywhere in euclidean spaces, provided that the gauge is Dini integrable. In this talk I will present a condition on the ambient norm for which this result still holds true in a Banach space. Some questions about the optimality of this condition will be also discussed.