Tanmoy Paul (tanmoy_r@isical.ac.in) Stat–Math Division, Indian Statistical Institute, Kolkata 700108, India, ***Ball Remotality in Function spaces.***

ABSTRACT. For a closed and bounded subset C of a Banach space X and $x \in X$ the well known farthest distance function is $\phi_C(x) = \sup_{z \in C} \|z - x\|$. We call $z \in C$ is farthest from x if $\|z - x\| = \phi_C(x)$. We discuss the problem on existence of farthest point. A special attention will be given when this C is a unit ball of a closed subspace. We identify some subspaces of $C(T)$ and then for general $C(K)$ such that there are dense many points in $C(T)$ and hence in $C(K)$ from where there exists farthest points in the unit ball of such subspaces. We prove that any M-ideal in $C(K)$ and also in $C_0(L)$ enjoys the above property. The well known Gelfand transform helps to conclude that any closed ideal in a commutative C^* algebra are also such type of subspaces.