Relative Chebyshev Centers in $L_\infty(\mu, X)$

Let $X$ be a Banach space and $Y$ a weakly $K$-analytic subspace of $X$. In this paper we study the simultaneous proximinality in the space $L_\infty(\mu, X)$. In this sense we have proved that $L_\infty(\mu, Y)$ is simultaneously proximinal in $L_\infty(\mu, X)$ if, and only if, $Y$ is simultaneously proximinal in $X$. 