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## Coproximinality in Spaces of Bochner Integrable Functions

In this short note we use a new way of applying von Neumann's selection theorem for obtaining best coapproximation in spaces of measurable functions. For a coproximinal closed subspace $Y$ of a Banach space $X$, we show that if $Y$ is constrained in a weakly compactly generated dual space, then the space $L^1(\mu, Y)$ of $Y$-valued Bochner integrable functions is coproximinal in $L^1(\mu, X)$. This extends a result of M. R. Haddadi, N. Hejazjpoor and H. Mazaheri [*Some results about best coapproximation in $L^P(S, X)$*, Anal. Theory Appl. 26 (2010) 69–75], proved when $Y$ is reflexive.

**Keywords**: Coproximinality, constrained subspaces, weakly compactly generated spaces, spaces of Bochner integrable functions, von Neumann's selection theorem.

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