

On the H-property and Rotundity of Cesaro-Direct-Sum of Banach Spaces

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Abstract

In this paper, we define the direct sum $(\oplus_{i=1}^n X_i)_{ces_p}$ of Banach spaces X_1, X_2, \dots , and X_n and consider it equipped with the Cesaro p-norms when $1 \leq p < \infty$. We show that $(\oplus_{i=1}^n X_i)_{ces_p}$ has presented H-property if and only if each X_i has the H-property, and $(\oplus_{i=1}^n X_i)_{ces_p}$ has the Schur's property if and only if each X_i has the Schur's property. Moreover, we also show that $(\oplus_{i=1}^n X_i)_{ces_p}$ is rotund if and only if each X_i is rotund.

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