

**Retbi, A.; El Wahbi, B.**

**L-Dunford-Pettis property in Banach spaces.** (English) Zbl 1374.46025  
Methods Funct. Anal. Topol. 22, No. 4, 387-392 (2016).

A norm bounded subset  $A$  of a Banach space  $X$  is called a Dunford-Pettis (DP) set if every weakly null sequence  $\{f_n\} \subset X'$  converges to zero uniformly on  $A$ .

The authors introduce and study a dual notion. A norm bounded subset  $A$  of the dual space  $X'$  is called an L-DP set if for every weakly null sequence  $\{x_n\}$ , which is a DP set in  $X$ ,

$$\lim_{n \rightarrow \infty} \sup_{f \in A} |f(x_n)| = 0.$$

Connections of this property with some well-known geometric properties of Banach spaces are discussed. Another related subject is the complementability in spaces of operators from  $X$  to  $l^\infty$ .

Reviewer: [Anatoly N. Kochubei \(Kyiv\)](#)

**MSC:**

[46B50](#) Compactness in Banach (or normed) spaces

[46B28](#) Spaces of operators; tensor products; approximation properties

Cited in **2** Documents

**Keywords:**

[Dunford-Pettis property](#); [Dunford-Pettis set](#); [complementability in spaces of operators](#)

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