

## On convergence of sections of sequences in Banach spaces

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### Abstract

An elementary proof of the (known) fact that each element of the Banach space  $\ell_w^p(X)$  of weakly absolutely  $p$ -summable sequences (if  $1 \leq p < \infty$ ) in the Banach space  $X$  is the norm limit of its sections if and only if each element of  $\ell_w^p(X)$  is a norm null sequence in  $X$ , is given. Little modification to this proof leads to a similar result for a family of Orlicz sequence spaces. Some applications to spaces of compact operators on Banach sequence spaces are considered.

### Key words and phrases

weak  $\ell^p$ -sequences Orlicz sequence spaces compact operators