On Generalized Quasi-Convex Bounded Sequences

Mahmut KARAKUŞ [1]

[1] *Department of Mathematics, Yüzüncü Yıl University, Van, TURKEY*
E-mail: matfonks@gmail.com

Abstract: The space of all sequences $a = (a_k)$ for which $||a||_q = \sum_k k|\Delta^2 a_k| + \sup_k |a_k| < \infty$ is denoted by q [2]. Here, $\Delta a_k = a_k - a_{k+1}$ and $\Delta^m a_k = \Delta(\Delta^{m-1}a_k) = \Delta^{m-1}a_k - \Delta^{m-1}a_{k+1}$ with $\Delta^0 a_k = a_k,\ m \geq 1$. If $a = (a_k) \in q$ then $k\Delta a_k \to 0$ $(k \to \infty)$ and $q \subset bv$, the space of all sequences of bounded-variation, since $\sum_k |\Delta a_k| \leq \sum_k k|\Delta^2 a_k|$. In the study we shall give a generalization of quasi-convex bounded sequences.

Keywords: FK spaces, $\beta-$ and $\gamma-$ duals, topological sequence spaces.

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