On β-dual of Banach space valued difference sequence spaces

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The main object of this paper is to introduce the Banach space valued difference sequence spaces $\ell_\infty(X,\Delta), c(X,\Delta)$ and $c_0(X,\Delta)$ as a generalization of the well known difference sequence spaces of Kizmaz. We obtain a set of sufficient conditions for $(A_k) \in E^\beta(X,\Delta)$ where $E \in \{\ell_\infty, c, c_0\}$ and (A_k) is a sequence of linear operators on a Banach space X into another Banach space Y. Necessary conditions for $(A_k) \in E^\beta(X,\Delta)$ have also been investigated.

Joint work with Sandeep Gupta.