ON THE GENERALIZED $B^m$-DIFFERENCE RIESZ SEQUENCE SPACES

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ABSTRACT: In the present paper, we define the generalized difference of Riesz sequence spaces $\tau^{B^m}_c(p,\ell_{c}^m)$, $\tau^B_c(p, B^m)$ and $\tau^B_0(p, B^m)$ of order m which consist of the sequences whose $B^m$-transforms are in the Riesz sequence spaces $\tau^{B^m}_c(p)$, $\tau^B_c(p)$ and $\tau^B_0(p)$ introduced by Altay and Başar. We examine some topological properties and compute the $\alpha$-, $\beta$- and $\gamma$-duals of the spaces $\tau^{B^m}_c(p,\ell_{c}^m)$, $\tau^B_c(p, B^m)$ and $\tau^B_0(p, B^m)$. Finally we determine the necessary and sufficient conditions on the matrix transformation from the spaces $\tau^{B^m}_c(p,\ell_{c}^m)$, $\tau^B_c(p, B^m)$ and $\tau^B_0(p, B^m)$ to the spaces $\ell_c^m$ and $c$.

REFERENCES


