

On Compact Operators between Banach-Koordinat (BK) Spaces

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Abstract

We give the characterization of BK spaces that contain isomorphic copies of $c_0(\Lambda)$, $c(\Lambda)$ and $c_\infty(\Lambda)$ and the operators which factor compactly through BK spaces. We further give their first and second dual spaces and show the matrix transformations from these sets into the spaces ℓ_∞ , c and c_0 . Consequently, we shall study the establishment of some new results such as an application of the results to the study of locally convex spaces which are subspaces of projective limits of BK spaces with compact linking mappings. The representations of the general bounded linear operators from $c(\Lambda)$ into the spaces ℓ_∞ , c will extend to the work on BK spaces and the compact operators. The basic tool used in this is the Bassaga-Peczynski and Jeff Connor characterization of Banach spaces which contain isomorphic copies.