On q^{λ} and q_0^{λ} Invariant Sequence Spaces

Mahmut KARAKUŞ $^{\rm 1}$

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

Abstract: Invariant sequence spaces are very helpful for investigations of the duality of sequence spaces. For instance, if the sequence space X satisfies the condition $\ell_{\infty}.X = X$ then its $\alpha -$, β - and γ - duals are same [5]. Garling [2] investigated B- and B_0 - invariant sequence spaces and Buntinas [3] introduced and investigated q- and q_0 - invariant sequence spaces and recently, Grosse-Erdmann [4] studied on ℓ_1 invariant sequence spaces.

In this work, we define q^{λ} and q_0^{λ} invariant sequence spaces, X with $q^{\lambda}.X = X$ and $q_0^{\lambda}.X = X$, respectively. and give some related theorems.

Keywords: K- spaces, λ -boundedness and λ -convergence of a sequence, β -, γ -, f- duality.

2010 Mathematics Subject Classification: Primary: 40H05, 46A45, Secondary: 40G99, 40C05.

References

[1]

- [2] D. J. H. Garling, On topological sequence spaces, Proc. Camb. Phil. Soc., 63 (1967), 997-1019.
- [3] M. Buntinas, Convergent and bounded Cesà ro sections in FK-spaces, Math. Zeitschr., 121 (1971), 191-200.
- [4] K.-G. Grosse-Erdmann, On l₁ invariant sequence spaces, J. Math. Anal. Appl., 262(2001), 112-132.
- [5] J. Boos, Classical and Modern Methods in Summability, Oxford University Press. New York, Oxford, 2000.