Electronic Journal: Southwest Journal of Pure and Applied Mathematics
Internet: http://rattler.cameron.edu/swjpam.html
ISBN 1083-0464
Issue 2 December 1998, pp. 1 – 6
Submitted: September 1, 1998. Published: February 1, 1999

EIGENVALUE DISTRIBUTION OF INTEGRAL OPERATORS DEFINED BY ORLICZ KERNELS

E. Elshobaky and M. Faragallah

Abstract. In this paper the new interpolation method (see [GP], [FG]) has been applied to drive some theorems, e.g., the interpolation of L_p spaces, l_p spaces, and b^{σ}_{pu} (see [EF]). Using the interpolation results in [EF] with the eigenvalue results we give a good estemate for the eigenvalues of integral operators defined by kernels belong to vector valued Orlicz spaces $L_p(L_\Phi)$, $l_p(l_\Phi)$ and vector valued Besov - Orlicz sequence spaces $b^s_{pu}(b^t_{\Phi v})$.

1991 A.M.S. (MOS) Subject Classification Codes. 46B20, 47B10

Key Words and Phrases:. Integral operator, Orlicz kernel, interpolation, Besov-Orlicz sequence

Department of Mathematics, Ain Shams University, Cairo, Egypt

Typeset by $\mathcal{A}\mathcal{M}\mathcal{S}$-TEX