

1030-42-166

Calixto P. Calderon* (cpc@uic.edu), 1806 Oakton Street, Evanston, IL 60202. *Abel Summability of Laguerre and Jacobi Functions Expansions.*

An alternative proof of K. Stempak theorem (see Heat Diffusion and Poisson Integrals for Laguerre Expansions, Tohoku Math. J. 46 (1944)83-104). The proof we discuss is based on an adaptation of Riesz's sun rising lemma to the specific context of Abel Summability and its Maximal theorem for Laguerre Functions Expansions. The other result is concerned with Abel Summability of Jacobi functions Expansions and their Maximal Inequalities. In this context we prove the corresponding Muckenhoupt Inequalities for weights. The reference for these results is: Calixto P. Calderon and Virginia N.Vera de Serio "Abel Summability of Jacobi Type Series", Illinois Journal of Math.41, 2, 1997,237-265. (Received July 31, 2007)