

WEIGHTED END-POINT WEAK TYPE (p, p) ESTIMATES FOR g_λ^* -FUNCTION WITH KERNELS OF LOWER REGULARITIES

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Abstract. In 1970, if $1 < p < 2$ and $\lambda = 2/p$, C. Fefferman obtained the end-point weak (p, p) boundedness of g_λ^* -function. In this paper, the authors essentially improved the result given by C. Fefferman, by showing that the weighted end-point weak type (p, p) boundedness of g_λ^* -function still holds with lower regularities assumed on the kernel for $1 < p < 2$ and $\lambda = 2/p$. Moreover, similar results can also be extended to parametric Littlewood-Paley g_λ^* -function with more rough kernels.

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