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Use of Convexity of the Unit Ball of a Space for Improving on the Jackson Inequality

The Littlewood-Paley inequality has been used to sharpen the Jackson inequality for L_p when $p \in (1, \infty)$ and $s = \max(p, 2)$.These new inequality was an improvement on the Jackson inequality which yield better asymptotic behavior. A recent different technique uses conditions on the convexity of the unit ball of a space B related to s to achieve such results which we call sharp Jackson inequalities. This allow us to obtain Sharp Jackson inequalities for spaces and systems of orthogonal expansions for which the Littlewood -Paley inequality cannot be employed.