

ON QUASI-GREEDY UNIFORMLY BOUNDED BASES FOR $L_p([0, 1])$

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A normalized Schauder basis in a Banach space X is called quasi-greedy if the decreasing rearranged expansion of each element $x \in X$ is norm convergent. It is known that classical uniformly bounded systems such as the trigonometric basis and the Walsh basis fail to be quasi-greedy in $L_p([0, 1])$ for $p \neq 2$. In this talk we consider the construction of a quasi-greedy basis \mathcal{B} for $L_p([0, 1])$, $1 < p < \infty$, such that \mathcal{B} is a uniformly bounded orthonormal basis for $L_2([0, 1])$.