

ASYMPTOTIC UNCONDITIONALITY IN BANACH SPACES

Simon Cowell

Professor Nigel J. Kalton, Dissertation Supervisor

ABSTRACT

We show that a separable real Banach space embeds almost isometrically in a space Y with a shrinking 1-unconditional basis if and only if $\lim_{n \rightarrow \infty} \|x^* + x_n^*\| = \lim_{n \rightarrow \infty} \|x^* - x_n^*\|$ whenever $x^* \in X^*$, $(x_n^*)_{n=1}^\infty$ is a weak*-null sequence and both limits exist. If X is reflexive then Y can be assumed reflexive. These results provide the isometric counterparts of recent work of Johnson and Zheng.