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Dentable Point and Ball-Covering Property in Banach Spaces

We prove that if every bounded subset of X^* is w^*-separable, X is compactly locally uniformly convex, X is 2-strictly convex and X is nonsquare, then there exists a sequence $\{x_n\}_{n=1}^{\infty}$ of dentable points of $B(X)$ such that $S(X) \subset \cup_{n=1}^{\infty} B(x_n, r_n)$, where $r_n < 1$ for all $n \in N$. Moreover, we also prove that if A is a bounded closed convex subset of X, then $x \in A$ is a strongly exposed point of A if and only if x is a dentable point of A and x is a w^*-exposed point of $\overline{A^{w^*}}$.

Keywords: Compactly locally uniformly convex, ball-covering property, dentable point, nonsquare space, 2-strictly convex space.

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