Title: Preserved and unpreserved extreme points in Banach spaces.

Authors: Vicente Montesinos, A.J. Guirao, V. Zizler.

Abstract. A result of P. Morris showed that every separable Banach space containing an isomorphic copy of c_0 can be renormed in such a way that all points in its unit sphere are extreme, and none of them is an extreme point of the closed unit ball of its bidual (those extreme points are said to be "unpreserved"). By using combined techniques of Godun, Morris, and some extra ingredients including the separable complementation property and the existence of Day's norm on $c_0(\Gamma)$ we show that the result can be extended to familiar cases of nonseparable Banach spaces, getting, moreover, uniformity of the non-preservation. Some applications are given.

References

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