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Sudeshna Basu* (sudeshname1ody@gmail.com), Department of Mathematics, RKMVERI, Howrah, India, and **Susmita Seal**. *Stability Results Of Small Diameter Properties In Banach Spaces*.

The notion of huskability initiated and developed earlier was subsequently extensively studied in the context of dentability and Radon Nikodym Property . In this work, we introduce a new geometric property of Banach space, the Ball Huskable Property (*BHP*), namely, the unit ball has relatively weakly open subsets of arbitrarily small diameter. We compare this property to two related geometric properties, *BSCSP* namely, the unit ball has convex combination of slices of arbitrarily small diameter and *BDP* namely, the closed unit ball has slices of arbitrarily small diameter. We show *BDP* implies *BHP* which in turn implies *BSCSP* and none of the implications can be reversed. We prove similar results for the w^* -versions. We prove that all these properties are stable under l_p sum for $1 \leq p \leq \infty$. These stability results lead to a discussion in the context of ideals of Banach spaces. We prove that *BSCSP* (respectively *BHP*, *BDP*) can be lifted from an M-Ideal to the whole space. We also show similar results for strict ideals. We note that the space $C(K, X)^*$ has w^* -*BSCSP* (respectively w^* -*BHP*, w^* -*BDP*) when K is dispersed and X^* has the w^* -*BSCSP* (respectively w^* -*BHP*, w^* -*BDP*). (Received January 19, 2021)