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ON THE MONOTONICITY OF NON-LOCAL PERIMETER OF CONVEX BODIES

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Abstract. Under mild assumptions on the kernel $K \geq 0$, the non-local K-perimeter P_K satisfies the monotonicity property on nested convex bodies; i.e. if $A \subset B \subset \mathbb{R}^n$ are two convex bodies, then $P_K(A) \leq P_K(B)$. In this note, we prove quantitative lower bounds on the difference of the K-perimeters of A and B in terms of their Hausdorff distance, provided that K satisfies suitable symmetry properties.

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