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LOCAL DIAMETERS OF COMPACT SETS

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Abstract. Given, in a normed space, a compact set K and $P \in K$, let $r(K,P) = \max_{R\in K} ||P - R||$. For $P_1 \in K$ we consider sequences $P_i, i = 1, 2, ...,$ such that $||P_{i+1} - P_i|| = r(K, P_i)$. The behaviour of such sequences for K contained in the Euclidean plane, and their limits were studied by Alarcon and Stolarsky in [1]. Here we try to sharpen some of their results and to extend them to a more general setting.

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