HAUSDORFF DIMENSION AND PROJECTIONS RELATED TO INTERSECTIONS

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Abstract: For $S_g(x, y) = x - g(y)$, $x, y \in \mathbb{R}^n$, $g \in O(n)$, we investigate the Lebesgue measure and Hausdorff dimension of $S_g(A)$ given the dimension of A, both for general Borel subsets of $\mathbb{R}^{2n}$ and for product sets.