

Difference of Cantor sets and frequencies in Thue–Morse type sequences

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Abstract. In a recent paper, Baker and Kong have studied the Hausdorff dimension of the intersection of Cantor sets with their translations. We extend their results to more general Cantor sets. The proofs rely on the frequencies of digits in unique expansions in non-integer bases. In relation with this, we introduce a practical method to determine the frequency of any given finite block in Thue–Morse type sequences.

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