

When normality and dynamical normality coincide for nice classes of Cantor series

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9 May 2023

We were shown that base- b normality is equivalent to base- b dynamical normality for any integer $b > 1$, but the same need not be true for a general cantor series $(q_n)_n$. We will consider a class of basic sequences $(q_n)_n$ that are generated by dynamical systems. It is known that if the generating dynamical system is deterministic, then dynamical normality implies normality. We will also state a combinatorial conjecture which implies the converse, e.g., that normality implies dynamical normality. We will then look at some examples showing that these notions need not coincide when the generating dynamical system has positive entropy.