

INVARIANT σ -IDEALS WITH ANALYTIC BASE ON GOOD CANTOR MEASURE SPACES

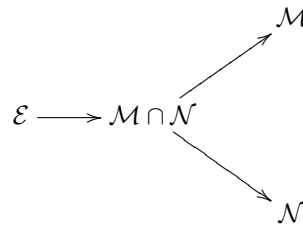
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Definition 1. (X, μ) is called a Cantor measure space if the topological space X is homeomorphic to the Cantor cube $\{0, 1\}^\omega$ and the measure $\mu : \mathcal{B}(X) \rightarrow [0, \infty)$ is continuous, i.e. $\mu(\{x\}) = 0$ for any point $x \in X$.

Definition 2. A Cantor measure space (X, μ) is called good if its measure μ is good in the sense of Akin (see [1]), i.e.,

- strictly positive, i.e. $\mu(U) > 0$ for any non-empty open set $U \subseteq X$,
- μ satisfies the Subset Condition, i.e. for any clopen sets $U, V \subseteq X$ with $\mu(U) < \mu(V)$ there is a clopen set $U' \subseteq V$ such that $\mu(U') = \mu(U)$.

Theorem 1 ([2]). Each non-trivial invariant σ -ideal \mathcal{I} with analytic base on a good Cantor measure space (X, μ) is equal to one of the σ -ideals:



REFERENCES

- [1] E.Akin, *Good measures on Cantor space*, Trans. Amer. Math. Soc. 357 (2005), 2681-2722.
- [2] T. Banach, R. Rałowski, S. Żeberski, *Classifying invariant σ -ideals with analytic base on good Cantor measure spaces*, Proc. Amer. Math. Soc., 144 (2016) 837-851.

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