

ABSTRACT

SETS OF FUNCTIONS WHICH HAS PROPERTY (V)

THE VON NEUMANN DENSITY THEOREM

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Abstract. A set of functions $F \subset C(X; [0,1])$ has the property (V) , if $1-f \in F$ and $f \cdot g \in F$, $\forall f, g \in F$. Von Neumann is the one who drew attention to this collections of functions in [4].

Moreover, he claims, without proof, a density theorem for such families of functions. A careful analysis of these sets and their properties was made by R.I.Jewett in [3].

In this paper we present a new, more accessible proofs for the majority of the results from [3].

We especially mention our proof of Lemma 1 which plays an essential role in the whole paper of [3].

Also we mention some new results as Propositions 3.1, 3.2 and 3.3 that make the connection between the Uryson sets and the sets which has the property (V) and the Corrolary 4.1 from which the Theorem 4.18 of [5] immediately follows.

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