

MYCIELSKI MEETS EGGLESTON, MEASURE CASE

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The motivation of this work are the two classical theorems on inscribing rectangles and squares into large subsets of the plane, namely Eggleston Theorem and Mycielski Theorem. We proved that every conull subset of the plane contains a rectangle $[T] \times H$, where T is a Spinax tree containing a Silver tree and H is conull. Moreover we obtained a common generalization of Eggleston Theorem and Mycielski Theorem stating that every conull subset of the plane contains a rectangle $[T] \times H$ modulo diagonal, where T is a uniformly perfect tree, H is conull and $[T] \subseteq H$.

Presented results are obtained together with M. Michalski and R. Rałowski.

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