

STRUCTURE OF NULL SETS IN THE PLANE AND APPLICATIONS

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In this talk I will try to describe (part of) an ongoing research with D. Preiss and M. Csornyei (University College London). The starting point is a decomposition theorem for null sets (sets of measure zero) in the plane, which can be obtained as a direct consequence of a geometric version of the Erdos-Szekeres theorem. I will outline some applications to problems in Geometric Measure Theory (and not only). If time permits, I will finally address the issue of extending these results to higher dimensions.