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Singular measures and $(1, p)$ -capacity on weighted Sobolev classes. (Russian, English)

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The purpose of the article is to study the conditions which guarantee that a contribution of the so-called singular part of a measure into $(1, p)$ -capacity of an arbitrary capacitor is zero.

The main result reads as follows: Let $E \subset D \subset \mathbb{R}^n$ be a set of Hausdorff linear measure zero. Then every finite regular Borel measure with support in E is p -trivial.

Reviewer: [V. Grebenev \(Novosibirsk\)](#)

MSC:

[28A12](#) Contents, measures, outer measures, capacities

[46E35](#) Sobolev spaces and other spaces of “smooth” functions, embedding theorems, trace theorems

[46E27](#) Spaces of measures

[28A78](#) Hausdorff and packing measures

Keywords:

capacity; singular measure; Sobolev space; integral relation; Hausdorff linear measure zero; regular Borel measure

Full Text: [EuDML](#) [EMIS](#)