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Jorge Rivera-Noriega* (rnoriega@servm.fc.uaem.mx), Universidad Autonoma del Estado de Morelos, Av. Universidad 1001. Col. Chamilpa, CP62209 Cuernavaca, Morelos, Mexico. *A square function estimate related to singularity of non-divergence harmonic measures.* Preliminary report.

It was recently obtained by M. Gonzalez and A. Nicolau, a criterion for the singularity of a given Borel measure with respect to Lebesgue measure on the euclidean space \mathbb{R}^n . This criterion is given in terms of the so called multiplicative square function of the harmonic extension of the Borel measure in question. We obtain a version of this result for solutions for non-divergence elliptic equations, which in particular gives a sufficient condition for the corresponding harmonic measure to be singular with respect to the surface measure of a bounded Lipschitz domain. (Received February 13, 2006)