Quantitative uniqueness for the power of the Laplacian with singular coefficients

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Abstract. In this paper we study the local behavior of a solution to the *l*-th power of the Laplacian with singular coefficients in lower order terms. We obtain a bound on the vanishing order of the nontrivial solution. Our proofs use Carleman estimates with carefully chosen weights. We will derive appropriate three-sphere inequalities and apply them to obtain doubling inequalities and the maximal vanishing order.