

SOME REMARKS ON RESTRICTION OF THE FOURIER TRANSFORM FOR GENERAL MEASURES

PER SJÖLIN AND FERNANDO SORIA

Abstract

In this paper we establish a formal connection between the average decay of the Fourier transform of functions with respect to a given measure and the *Hausdorff behavior* of that measure. We also present a generalization of the classical restriction theorem of Stein and Tomas replacing the sphere with sets of prefixed Hausdorff dimension $n - 1 + \alpha$, with $0 < \alpha < 1$.

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