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# Distorted plane waves in chaotic scattering

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## Abstract

Distorted plane waves, sometimes called Eisenstein functions, are a family of eigenfunctions of a Schrödinger operator that are not square integrable. More precisely, they can be written as the sum of a plane wave and a purely outgoing wave. We shall study distorted plane waves in the semiclassical limit, on manifolds that are Euclidean near infinity, under the hypothesis that the classical dynamics is hyperbolic close to the trapped set, and that some topological pressure is negative.

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