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Title 2: On Open Scattering Channels for Manifolds with Ends.

Abstract. We discuss the interaction of channels in geometric scattering theory where the dynamics is given by the Laplacian on a complete Riemannian manifold \mathcal{M} with a finite number of ends. Here we first prove existence and completeness of the wave operators for perturbations of the metric. We then establish the following stability result: suppose the *j*-th scattering channel is *open* in the sense that waves coming in from infinity in this channel are not totally reflected; then the same property holds for small perturbations of the metric. The conditions on the size of the perturbation are expressed in terms of the harmonic radius r(x) at a point $x \in \mathcal{M}$, as defined by Anderson and Cheeger. We present simple examples like rotationally symmetric manifolds and double coverings of the plane. (Joint work with R. Weder (Mexico City) and O. Post (Berlin)).