

On open scattering channels for manifolds with horns.

We study 2-channel scattering for the Laplace-Beltrami-operator on manifolds with two types of infinities, one of them flat and the other one given by a “horn”. Our main interest is in the *transmission* from one channel into the other one. Here the model with cylindrical symmetry is easily reduced to a 1-dimensional problem and we find non-zero transmission from the flat channel into the horn. We finally discuss small perturbations of the cylindrically symmetric case.

(Joint work with O. Post, Aachen, and R. Weder, Mexico City)