## 1052-35-308Antonio Sa Barreto\*, Department of Mathematics, Purdue University, 150 N. University St.,<br/>West Lafayette, IN 47907. Topics in geometric scattering theory.

We will discuss asymptotic properties of solutions to the wave equation on complete manifolds which, in a weak sense, are modeled by Euclidean or hyperbolic space near infinity. We then introduce the scattering operator and discuss some of its properties. We will end by stating some open problems in the field. (Received August 31, 2009)