1116-58-1707   **Antônio Sá Barreto** and **Yiran Wang*** (`yrwang.math@gmail.com`). *The Scattering Relation on Asymptotically Hyperbolic Manifolds.*

The scattering relation plays an important role in (inverse) scattering theory. For non-trapping asymptotically hyperbolic manifolds (AHM) which are natural generalizations of the hyperbolic manifolds, we analyze the global behavior of Lagrangian submanifolds associated to the geodesic flows. We define the scattering relation and obtain the asymptotics of the distance function. We also generalize the analysis to conformal compact manifolds, where the curvature is not asymptotically constant at infinity. (Received September 21, 2015)