1056-58-1112 **David Borthwick** (davidb@mathcs.emory.edu), Dept. of Mathematics and Computer Science, Emory University, Atlanta, GA 30322, and **Peter A. Perry*** (perry@ms.uky.edu), Department of Mathematics, University of Kentucky, Lexington, KY 40506-0027. *Inverse scattering results for manifolds hyperbolic at infinity.*

This is joint work with David Borthwick. We study the inverse resonance problem for conformally compact manifolds which are hyperbolic outside a compact set. Our results include compactness of isoresonant metrics in dimension two and of isophasal negatively curved metrics in dimension three. In dimensions four or higher we prove topological finiteness theorems under the negative curvature assumption. (Received September 20, 2009)