Meeting: 999, Nashville, Tennessee, SS 9A, Special Session on Inverse Problems

999-53-73 Plamen Stefanov* (stefanov@math.purdue.edu), Department of Mathematics, Purdue University, West Lafayette, IN 47907, and Gunther Uhlmann, Department of Mathematics, University of Washington, Seattle, WA. Stable determination of generic simple metrics from the hyperbolic DN map.

We study the problem of determining a metric from the associated Dirichlet-to-Neumann map. Uniqueness for this problem has been proven by Belishev and Kurylev using unique continuation principle established by Tataru. We show that there is Hölder type of stability estimate for generic simple metrics using some recent results of ours on the boundary rigidity problem. (Received August 07, 2004)