Roberto Triggiani* (rtrggani@memphis.edu) and Zhifei Zhang. Global uniqueness and stability in determining the electric potential of an inverse problem for the Schrodinger equation on a Riemannian manifold.

We consider an inverse problem for a Schrodinger equation defined on an open, bounded, connected set of a complete n-dimensional Riemannian manifold, with non-homogeneous Dirichlet boundary conditions. The goal is to recover the electric potential by means of a Neumann boundary measurement on an explicit sub portion of the boundary. Both uniqueness and stability of the recovery are obtained in terms of sharp conditions on the data. A key ingredient of the investigation are the Carleman estimates in Triggiani-Xu (2007) of the Schrodinger equation on a Riemannian manifold. (Received January 28, 2014)