

1018-49-162

Roberto Triggiani (rt7u@virginia.edu), Department of Mathematics, University of Virginia, P.O. BOX 400137, Charlottesville, VA 22904, and **Xiangjin XU*** (xx8n@virginia.edu), Department of Mathematics, University of Virginia, P.O. BOX 400137, Charlottesville, VA 22904. *Pointwise Carleman Estimates, Global Uniqueness, Observability, and Stabilization for Schrödinger Equations on Riemannian Manifolds at the $H^1(\Omega)$ -Level.* Preliminary report.

This is joint work with prof. Roberto Triggiani. We first prove pointwise Carleman estimates for non-conservative Schrödinger equations on Riemannian manifolds with Dirichlet B.C or Neumann B.C, when some geometric assumptions are satisfied on manifold and boundary. Applying the pointwise Carleman estimates, we obtain global uniqueness and continuous observability properties at H^1 level for solutions. (Received March 05, 2006)