1067-35-753   **Roberto Triggiani*** (`rt7u@virginia.edu`), Department of Mathematics, University of Virginia, Charlottesville, VA 22904, and **Shitao Liu** (`sl3fa@virginia.edu`), Department of Mathematics, University of Virginia, Charlottesville, VA 22904. *Global uniqueness and stability in determining coefficients for a system of coupled Schrodinger equations.* Preliminary report.

We consider the inverse problem of determining 2 unknown coefficients for a system of two strongly coupled Schrodinger equations with magnetic potential with Neumann non-homogeneous boundary conditions from Dirichlet boundary measurements on an explicit portion of the boundary and over an arbitrarily short time interval. Key ingredient in the proofs is a sharp and very general Carleman estimate for Schrodinger equations from the author's joint work (2002). (Received September 14, 2010)