

1015-35-157

Russell M Brown* (russell.brown@uky.edu), Department of Mathematics, University of Kentucky, Lexington, KY 40506-0027, and **Mikko Salo**, Department of Mathematics and Statistics, University of Helsinki, Helsinki, Finland. *Identifiability at the boundary for a vector potential in a magnetic Schrödinger operator.*

We consider a magnetic Schrödinger operator $L_W = \sum(D_j + W_j)^2$ in a C^1 -domain, Ω , in R^n with $n \geq 3$. We assume that the vector potential is continuous. We let Λ_W denote the Dirichlet-to-Neumann map associated to L_W . We show how to recover the tangential component of W at the boundary from the Dirichlet-to-Neumann map. Our method is constructive and provides a stability estimate. (Received February 02, 2006)