

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

999-35-164 **Russell M Brown*** (russell.brown@uky.edu), Department of Mathematics, University of Kentucky, Lexington, KY 40506 0027. *Continuity of a scattering transform for a first-order system.*

We consider a scattering transform for the first order system in the plane,

$$\begin{pmatrix} \partial_{\bar{x}} & 0 \\ 0 & \partial_x \end{pmatrix} \psi - \begin{pmatrix} 0 & q^1 \\ q^2 & 0 \end{pmatrix} \psi = 0.$$

We show that the scattering map is Lipschitz continuous on a neighborhood of zero in L^2 . (Received August 21, 2004)