

Meeting: 1003, Atlanta, Georgia, SS 5A, AMS Special Session on Radon Transform and Inverse Problems, I

1003-44-1249 **Allan Greenleaf*** (allan@math.rochester.edu), Dept. of Mathematics, Univ. of Rochester, Rochester, NY 14627, and **Karthik Ramaseshan**, Dept. of Mathematics, Univ. of Rochester, Rochester, NY 14627. *Microlocal analysis of a linearized identification problem for the attenuated Radon transform.* Preliminary report.

The identification problem for the attenuated Radon transform consists of finding the unknown attenuation coefficient from some set of observations. We describe the microlocal structure and mapping properties of the linearization of this problem about a smooth attenuation coefficient. (Received October 04, 2004)