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

999-35-137 Allan Greenleaf* (allan@math.rochester.edu), Dept. of Mathematics, Univ. of Rochester, Rochester, NY 14627, Matti Lassas, Institute of Mathematics, Box 1100, Helsinki University of Technology, FIN-02015 Espoo, Finland, and Gunther Uhlmann, Dept. of Mathematics, University of Washington, Seattle, WA 98195. Failure of uniqueness in the inverse conductivity problem.

We construct many (singular) anisotropic conductivities in dimensions greater than or equal to three which have the same Dirichlet-to-Neumann map as a constant isotropic conductivity. (Received August 19, 2004)