Meeting: 1003, Atlanta, Georgia, SS 4A, AMS-SIAM Special Session on Theoretical and Computational Aspects of Inverse Problems, I

1003-35-872 Allan Greenleaf* (allan@math.rochester.edu), Dept. of Mathematics, Univ. of Rochester, Rochester, NY 14627, Matti Lassas, Inst. of Mathematics, Helsinki Univ. of Technology, FIN-02015 Helsinki, Finland, and Gunther Uhlmann, Dept. of Mathematics, Univ. of Washington, Seattle, WA 98195. Nonuniqueness for singular anisotropic conductivities in the Calderon problem.

We construct singular anisotropic conductivities in three or more dimensions which have the same Dirichlet-to-Neumann map as a constant isotropic conductivity. (Received September 30, 2004)