

The Calderon Problem for Fractional Dirac Operators

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Abstract: We will discuss the anisotropic fractional Calderon problem for Dirac operators on closed manifolds. Namely we show that knowledge of the source-to-solution map of the fractional Dirac operator, for data sources supported in an arbitrary open set in a Riemannian manifold allows one to reconstruct the Riemannian manifold, its Clifford module structure, and the associated connection (up to an isometry fixing the initial set). Time permitting I will try to discuss some on-going work regarding other fractional powers of geometrically natural operators.