

## Fractional anisotropic Calderon problem on Riemannian manifolds

**Speaker:** Katya Krupchyk, University of California Irvine

**Abstract:** We shall discuss some recent progress on the fractional anisotropic Calderon problem on closed Riemannian manifolds of dimensions two and higher. Specifically, we show that the knowledge of the local source-to-solution map for the fractional Laplacian, given on an arbitrary small open nonempty a priori known subset of a smooth closed Riemannian manifold, determines the Riemannian manifold up to an isometry. This can be viewed as a nonlocal analog of the anisotropic Calderon problem in the setting of closed Riemannian manifolds, which is wide open in dimensions three and higher. This is joint work with Ali Feizmohammadi, Tuhin Ghosh, and Gunther Uhlmann.