Inverse Problems for Advection Diffusion Equations in Admissible Geometries

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We shall discuss inverse boundary problems for the advection diffusion equation on an admissible manifold, i.e. a compact Riemannian manifold of dimension ≥ 3 with boundary, which is conformally embedded in a product of the Euclidean real line and a simple manifold. We show the unique identifiability of a possibly discontinuous advection term from the knowledge of the associated Dirichlet-to-Neumann map on the boundary of the manifold. This is joint work with Gunther Uhlmann.