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A survey of the Calderón inverse problem.

The Calderón inverse problem in geometric analysis asks if the metric of a smooth compact Riemannian manifold with boundary is uniquely determined from the knowledge of the Dirichlet-to-Neumann map, that is the map that assigns to prescribed boundary data the normal derivative of the corresponding solution of the Laplace-Beltrami equation. While the Calderón inverse problem is still open in its full generality, there are a number of interesting and at times surprising results that provide either an affirmative answer or counterexamples, depending on which special assumptions are made about the background geometry. The talk will be an introduction to the Calderón problem and a survey of some of the main uniqueness and non-uniqueness results.