

# Stability of the Calderón problem for less regular conductivities

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**Abstract.** In this talk I will present a recent stability result for an inverse boundary value problem consisting in recovering the conductivity of a medium from boundary measurements. This inverse problem was proposed by Calderón in 1980 and it has attracted a lot of attention since Calderón published the foundational paper [2]. There has been and special interest in the question of minimal regularity assumptions on the conductivity and the boundary of the domain modelling the medium (see for example [1] and [3]). The result I will present provides a log-type stability estimate for the Calderón problem with conductivities in  $C^{1,\varepsilon}(\Omega)$  where the boundary of the domain  $\Omega$  is of Lipschitz class. More precisely, we quantify a recent uniqueness result [3] due to Haberman and Tataru in which they prove uniqueness for continuously differentiable conductivities. The aforementioned stability estimate was proved in a joint paper with Andoni García and Juan Reyes.

## References

- [1] Astala, K. and Päivärinta, L. Calderón's inverse conductivity problem in the plane. *Ann. of Math.* **163** (2006), 265–299.
- [2] Calderón, A. On an inverse boundary value problem. *Seminar on Numerical Analysis and its Applications to Continuum Physics*, Rio de Janeiro, Sociedade Brasileira de Matematica, (1980), 65–73.
- [3] Haberman, B.; Tataru, H. Uniqueness in Calderon's problem with Lipschitz conductivities. *Duke Math. J.*, **162** (2013), 497–516.