

THEMATIC SESSION: Analysis and PDEs

**The Calderón problem: on reconstruction in different settings**

María Ángeles García-Ferrero

Author (Affiliation)

María Ángeles García-Ferrero (Universitat de Barcelona) The classical Calderón problem is the inverse problem of determining the conductivity of the interior of a medium from voltage and current measurements on its surface. Closely related, we may consider the inverse problem of determining the potential of a Schrödinger equation from boundary measurements. Nonlocal versions of this problem can be also considered.

In this talk, we will focus on the information needed for the reconstruction. Namely, we will see that unique continuation properties associated to nonlocal operators reduce this information basically to one single, suitably localized, measurement. We will compare this with the local case and we will share some insights regarding the problem for low regular conductivities.