

# Numerical reconstruction of the conductivity in the Calderon problem from the Born approximation

C. Castro

Universidad Politécnica de Madrid

email: carlos.castro@upm.es

## Abstract

We consider the Calderon inverse problem which consists in recovering the interior conductivity coefficient from boundary measurements in an elliptic problem. We show how to compute numerically the so-called Born approximation which corresponds to a suitable linearization of the problem. This allows us in particular to explore several known (and unknown) properties of this Born approximation and to design some iterative algorithms to reconstruct the conductivity both in 2d and 3d.