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SEMINAR

of the

COMPLEX AND HYPERCOMPLEX ANALYSIS GROUP

Sala Sousa Pinto (2<sup>o</sup> piso), Departamento de Matemática

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## A new result on the inverse conductivity problem with discontinuous conductivities

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In this talk we present the inverse conductivity problem for complex conductivities with jumps. Such materials have never been considered in the literature where still the case of Lipschitz conductivities are assumed. For the study of this problem we model it as an interior transmission problem. To treat this problem several new concepts are required, such as an adaptation of the notion of scattering data, and the definition of admissible points, which permit the enlargement of the set of CGO incident waves. This will allow us to prove the reconstruction of the conductivity.

Given that this are early results in this direction, we also present some of the footwork necessary to proceed further in this direction.

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