

**Calderón's Inverse Problem with a Finite Number of Measurements**

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In this talk I will discuss how ideas from applied harmonic analysis, in particular sampling theory and compressed sensing (CS), may be applied to inverse problems in PDEs. The focus will be on inverse boundary value problems for the conductivity and the Schrodinger equations, and I will give uniqueness and stability results, both in the linearized and in the nonlinear case. These results make use of a recent general theory of infinite-dimensional CS for deterministic and non-isometric operators, which will be briefly surveyed. This is joint work with Matteo Santacesaria (University of Helsinki).