SPEAKER:

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TITLE:

Partial data and hybrid inverse problems

ABSTRACT:

A classic inverse problem posed by Alberto Caldern asks whether the conductivity of the inside of an object can be determined by making electrical measurements on the boundary. This problem turns out to be part of a large family of related inverse problems. In this talk I'll describe two variations of these problems. One is the partial data variation: can measurements on a subset of the boundary suffice to determine the interior data? The second is the hybrid variation: can we change the problem to improve the stability of the reconstruction? I'll explain each of these variations in a little more detail, and discuss some recent results along these lines.