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Hamid Hezari*, 510J Rowland Hall, UC Irvine, Irvine, CA 92697. *The Calderon problem with partial data*. Preliminary report.

In this talk we give a simple proof for a theorem of Imanuvilov, Uhlmann and Yamamoto. Their result shows that for a two dimensional bounded domain the Cauchy data for the Schrödinger equation measured on an arbitrary open subset of the boundary determines uniquely the potential. For the conductivity equation, this shows that current measurements at the boundary on an arbitrary open subset of the boundary produced by voltage potentials supported in the same subset, determines uniquely the conductivity. In our proof we will not use Carleman estimates with degenerate weight functions. Surprisingly we only use linear phase functions. (Received February 12, 2013)