

Observability inequalities and measurable sets

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Abstract. The control for evolution equations aims to drive the solution to a prescribed state starting from a certain initial condition. One acts on the equation through a source term, a so-called distributed control or through a boundary condition. To achieve general results one wishes to have as much latitude as possible in the choice of the control regions: location, size, shape. In the lecture, I explain how to derive the interior and boundary null-controllability of the heat equation with controls acting over measurable sets.