ON A CLASS OF BOUNDARY CONTROL PROBLEMS

RAINER PICARD, SASCHA TROSTORFF AND MARCUS WAURICK

Abstract. We discuss a class of linear control problems in a Hilbert space setting, which covers diverse systems such as hyperbolic and parabolic equations with boundary control and boundary observation even including memory terms. We introduce abstract boundary data spaces in which the control and observation equations can be formulated without strong geometric constraints on the underlying domain. The results are applied to a boundary control problem for the equations of visco-elasticity.


Keywords and phrases: Linear control systems, well-posedness, evolutionary equations, memory.

REFERENCES


