STACKELBERG CONTROL BONDARY WITH CONSTRAINTS ON THE STATE FOR A LINEAR HEAT EQUATION IN A BOUNDED DOMAIN

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Abstract

We study a linear system modelling a pollution diffusion problem. We assume that we act on the system with two controls in a hierarchical manner. One of the controls called follower, is a boundary control that solves an optimal control problem which consists in bringing the state of the system to zero, and the other control called leader, is a distributed control that solves a null controllability problem. The results are obtained using a Carleman inequality associated with a system of homogeneous boundary condition of the Dirichlet type.

References

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