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COMBINED SYSTEM CONTROLLER WITH AN IMPLICIT REFERENCE FOR OUTPUT CONTROL OF A STRUCTURALLY INDETERMINATE NON-AFFINE PLANT WITH AN UNKNOWN STATE DELAY

We study the problem of controlling the output of a non-affine plant with a state delay, the mathematical model of which is structurally and parametrically a priori uncertain. Within the framework of applying the hyperstability criterion and L-dissipativity conditions, as well as using an implicit reference model and filter correctors in the control system, we consider the use of a combined controller with minimal structural complexity, but ensuring the achievement of the set control goal in a given class of non-affine objects with an unknown state delay.
Keywords: non-affine control plant with unknown state delay, structural-parametric uncertainty, implicit standard, filter correctors, combined regulator of minimal structural complexity, hyperstability criterion, L-dissipativity conditions.

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