Structures actuators and regional stabilizability in distributed parameter systems

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ACTUATORS STRUCTURES AND REGIONAL STABILIZABILITY OF PARABOLIC DISTRIBUTED PARAMETER SYSTEMS"

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Abstract:

In this paper, we deal with linear infinite dimensional systems in a Hilbert space where the dynamics of the system are governed by strongly continuous semi-groups. We study the concept of regional stabilizability in connection with the structures of actuators. We consider a class of parabolic distributed systems and we give various results related with different types of actions, of domains and boundary conditions. We show that, there exists a system is not stabilizable in the usual sense, but it may be regional stabilizable. Furthermore, we apply these results to the regional compensation for a diffusion system.