STACKELBERG-NASH EXACT CONTROLLABILITY FOR LINEAR AND SEMILINEAR PARABOLIC EQUATIONS

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Given a parabolic system, we assume that we can act on it through a hierarchy of controls. Precisely, we apply the concept of Stackelberg-Nash strategies to control the system. A first control (the leader) is assumed to choose the policy and then a Nash equilibrium pair (corresponding to a non-cooperative multiple-objective optimization strategy) is found; this governs the action of the other controls (the followers). Here we obtain the exact controllability to a prescribed (but arbitrary) trajectory for linear and semilinear problems.