

Global Controllability of a Quasi-Linear Heat Equation with Boundary Conditions

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Abstract

In this work, we study the global controllability of the quasi-linear heat equation with boundary conditions. We consider distributed controls with support in a small sub-domain. We assume that the quasi-linear terms are locally Lipschitz. We prove that there exists a control that drives to desired state within a finite time.

Keywords: *Quasi-linear heat equation, Lipschitz continuity, global controllability*