

Controllability to rest of the Gurtin-Pipkin model

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Abstract

This paper is devoted to analyzing the controllability to rest of the Gurtin-Pipkin model, which is a class of differential equations with memory terms. The goal is not only to derive the state to vanish at some time but also to require the memory term to vanish at the same time, ensuring that the controlled system is controllable to rest. In order to get rid of the influence of memory, the controllability result is obtained by means of the Fourier type approach and the moment theory.

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