

论文

# ASYMPTOTIC ANALYSIS OF THE OPTIMAL CONTROL OF AN ELASTODYNAMIC SYSTEM

ZHANG Weitao, FENG Dexing

Institute of Systems Science, Academia Sinica, Beijing 100080, China

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**摘要** Based on the idea of the reduction of optimal control systems in singular perturbations of Lions and a priori estimates in [4], we prove the convergence of the optimal control, state and the cost function between a singular linear elastodynamic system and a limit system. Our asymptotic analysis is applicable to the optimal control of flexible robotic manipulators.

**关键词** [Asymptotic analysis, the reduction of sys](#)

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**Key words** [Asymptotic analysis](#) [the reduction of systems](#) [a priori estimates](#) [convergence between the singular and](#)

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