论文与报告

# 多变量系统二次稳定性容错控制问题的研究

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摘要
研究将现代鲁棒控制理论的一些思想和方法用于多变量控制系统的整体性容错控制问题, 指出执行器和传感器发生故障实际上可以看作系统所呈现的某种结构式不确定性. 在此基础上, 分别就系统可能存在执行器故障、传感器故障以及执行器和传感器同时发生故障等情况, 给出系统具有二次稳定性、整体性的充要条件.
关键词　　整体性　容错控制　二次稳定性　故障
分类号

# On the Problem of Quadratically Stability Fault-Tolrence Control for Multivariable Systems

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Abstract
In this paper, some of mordern robust control theory are used to study the problems of quadratically stability fault-tolrence control for multivariable control systems. It is pointed out that the actuator or sensor failures can be considered as some type of structured uncertainties of the systems. On the basis of this viewpoint, assuming that there are failures on actuators, sensors or the both, the necessary and sufficient conditions are put forward for systems keeping quadratical stability.

Key words　　Intergrity　fault-tolerance control　quadratical stability　fault

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