

Guaranteed Cost Control Of A Markov Jump Linear Uncertain System Using A Time-Multiplied Cost Function

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KLUWER ACADEMIC/PLENUM PUBL, JOURNAL OF OPTIMIZATION THEORY AND
APPLICATIONS; pp: 183-204; Vol: 116

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Summary

This paper addresses the guaranteed cost control problem of jump linear systems with norm-bounded uncertain parameters. A time-multiplied performance index is considered. The performance is calculated first and an LMI-based algorithm is developed to design a state feedback control law with constant gain matrices which robustly stabilizes the system in the mean-square quadratically stable sense.

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