



On the control of max-plus linear system subject to state restriction

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Mots-clés discrete [4], feedback [5], Max-plus [6], timed [7]

Résumé en anglais

This paper deals with the control of discrete event systems subject to synchronization and time delay phenomena, which can be described by using the max-plus algebra. The objective is to design a feedback controller to guarantee that the system evolves without violating time restrictions imposed on the state. To this end an equation is derived, which involves the system, the feedback and the restriction matrices. Conditions concerning the existence of a feedback are discussed and sufficient conditions that ensure the computation of a causal feedback are presented. To illustrate the results of this paper, a workshop control problem is presented.

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