

短文

间接自适应极点配置控制算法的跟踪能力研究

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摘要

为了研究现有间接自适应极点配置控制算法的跟踪能力,提出了一般形式的间接自适应极点配置控制算法.分析了这种算法用于已知和未知系统时的跟踪能力,并分别给出了渐近跟踪参考输出的充要条件.利用上述结果,可以对现有间接算法的跟踪能力进行逐一研究.研究表明,现有间接自适应极点配置控制算法的跟踪能力是有限的,它们至多能实现对一类参考输出的渐近跟踪.

关键词 [间接自适应](#) [极点配置](#) [渐近跟踪](#) [离散线性时不变](#)

分类号

On the Tracking Capacity of Indirect Adaptive Pole Placement Control Algorithms

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Abstract

In order to study the tracking capacity of existing indirect adaptive pole placement control algorithms, a generalized form of indirect adaptive pole placement control algorithm is proposed in this paper (it includes existing algorithms as its special cases). The authors have analyzed this algorithm's tracking capacity in applications, and obtained necessary and sufficient conditions on which the algorithm can track reference outputs asymptotically. Using the above results, the tracking capacity of existing indirect algorithms can be studied individually. The results of this paper show that the tracking capacity of indirect adaptive pole placement control algorithms can track a class of reference outputs asymptotically at most.

Key words [Indirect adaptive pole placement control algorithm](#) [asymptotic tracking](#) [discrete linear time-invariant SISO system](#)

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