论文与报告

抑制未知确定性扰动的极点配置自适应控制

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摘要
提出了一种可消除未知确定性扰动影响的极点配置自适应控制器的设计方法,扰动可以是频率未知的正弦波类及分段有界的t的多项式等形式的组合. 本设计法改进了求解扰动模型的计算方法,对扰动的频率数及被控对象的模型阶数没有限制. 与有关文献相比,算法简单,控制特性得到改善. 仿真结果表明了本设计法的有效性.
关键词　　未知频率　未知确定性扰动　极点配置自适应控制
分类号

Design of Adaptive Pole Placement Controller for Plants Having Unknown Deterministic Disturbances

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Abstract
This paper deals with a design method of adaptive pole placement controller which can eliminate unknown deterministic disturbances, such as sine wave with ,unknown frenqency and/or bouded t polynomial etc. In the algorithm, the calculation of disturbance model is reformed, which is applicable to the case of many frequencies. The proposed scheme is simple and control performance is improved compared with other methods concerned. The effectiveness of proposed methods is shown through simulations.
Key words　　Unknown frequency　unknown determinsistic disturbances　adaptive pole placement control

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