航空学报
ACTA AERONAUTICA ET ASTRONAUTICA SINICA
ISSN 1000-6893
CN 11-1929/V

航空学报 » 1994, Vol. 15 » Issue (4) :449-452 DOI:

基于神经网络的自适应状态观测器

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THE ADAPTIVE OBSERVER BASED ON NEURAL NETWORK

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摘要 参考文献 相关文章

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摘要 利用ＢＰ神经网络动态系统对一类非线性时变系统的状态进行了估计。利用神经网络的“学习－遗忘”特性,提出了非线性时变系统的自适应状态观测器,对其结构及特性进行了讨论。仿真结果表明这种自适应状态观测器能跟踪系统参数及状态的变化。

关键词： 状态估计 神经网 非线性系统－时间相关

Abstract： The back-propagation neural network is applied to the state estimation of nonlinear time-varying system. An adaptive state estimator based on the neural network is proposed,and the structure and characteristics of the observer are discussed,The results of estimation show that the proposed nonlinear state observer can deal with a large unknown nonlinearity and track the real system state satisfactorily.

Keywords： state estimation neural nets nonlinear systems-time dependance

Received 1993-06-22; published 1994-04-25

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引用本文:
覃祖旭;李渊涛;张洪钺. 基于神经网络的自适应状态观测器[J]. 航空学报, 1994, 15(4): 449-452.

Qin Zuxu;Li Yuantao;Zhang Hongyue. THE ADAPTIVE OBSERVER BASED ON NEURAL NETWORK[J]. Acta Aeronautica et Astronautica Sinica, 1994, 15(4): 449-452.