

BLDCM系统的全局指数吸引集以及反馈同步 (英)

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摘要 研究了无刷直流发电机(BLDCM)混沌系统的全局指数吸引集以及同步问题. 首先, 基于全局指数吸引集的概念和 Lyapunov 函数稳定性理论, 给出了全局指数吸引集的一个充分条件; 然后, 设计有效的控制器实现混沌系统的同步; 最后, 数值仿真结果表明该方法是快速有效的.

关键词 [全局指数吸引集](#) [同步](#) [混沌](#) [无刷直流发电机系统](#)

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Globally attractive set and feedback synchronization of the BLDCM system

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Abstract

The globally exponentially attractive set and synchronization problem of the brushless dc motor (BLDCM) chaotic system were researched. Firstly, based on the definition of globally exponentially attractive set and Lyapunov stability theory, a sufficient condition for the globally exponentially attractive was given. Secondly, nonlinear feedback control was used to realize the synchronization of two chaotic systems. Finally, numerical simulations were presented to show the effectiveness of the proposed chaos synchronization scheme.

Key words [globally exponentially attractive set](#) [synchronization](#) [chaos](#) [brushless dc motor chaotic system](#)

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