Active control versus recursive backstepping control of a chaotic system.

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Abstract

In this paper active controllers and recursive backstepping controllers are designed for a third order chaotic system. The performances of these controllers in the control of the dynamics of the chaotic system are investigated numerically and are found to be effective. Comparison of their transient performances show that the rate of convergence of error is faster for the active controllers than for the recursive backstepping controllers. However, the flexibility in the choice of the control laws for recursive backstepping design gives room for further improvement in its performance and enables it to achieve the goals of stabilization and tracking.

Keywords: *Active Control; Recursive Backstepping control chaotic system.*