

## عنوان مقاله:

Robust Impulsive Synchronization of Lorenz Chaotic Dynamical System with Capability of Unknown Bounded Disturbance Rejection

## محل انتشار:

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## خلاصه مقاله:

This paper considers the problem of disturbance rejection in impulsive synchronization of a class of nonlinear chaotic system with unknown parameters. The proposed method is based on the impulsive control approach. Adaptation laws are derived based on Lyapunov synthesis and therefore stability of the closed-loop system is guaranteed. By adding an extra term related to the square error between disturbance and the disturbance estimation in the Lyapunov function the capability of unknown bounded disturbance rejection is proved using Lyapunov direct method of stability. The Lorenz system is simulated to show the superiority of the proposed method and illustrate the theoretical analysis to preserve the stability and performance of the closed-loop system in the presence of the parameters uncertainties and arbitrary bounded disturbances

## کلمات کلیدی:

Impulsive synchronization, chaotic systems, disturbance rejection, impulsive control, adaptive equations

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/208289>

