عنوان مقاله:

PDC-based fuzzy impulsive control design with application to biological systems: predator-prey system

محل انتشار:

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خلاصه مقاله:

In this paper, stability analysis of the PDCbased Takagi-Sugeno (T-S) fuzzy impulsive control systems by using the extended Lyapunov stability theoryis investigated. Some sufficient conditions and criterions are derived for stability of T-S fuzzy impulsive control system in terms of linear matrix inequalities (LMIs).Finally, control schemes are successfully applied to stabilize a predator-prey system. The simulations demonstrate the effectiveness and advantages of the proposed approach

کلمات کلیدی:

Fuzzy impulsive control, Takagi–Sugeno (T–S) fuzzy model, Lotka-Volterra, Predator-prey System