Impulsive Synchronization of Laser Plasma System

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Abstract: The issue of impulsive synchronization of the coupled chaotic laser plasma system is investigated. A new framework for impulsive synchronization of such chaotic systems is presented, which makes the synchronization error system a linear impulsive control system. We derive some sufficient conditions for the synchronization of a laser plasma system via impulsive control with the varying impulsive intervals, which allows us to derive the impulsive synchronization law easily. To illustrate the effectiveness of the proposed results, two numerical examples are given.

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