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Instability criteria for impulsive hybrid state dependent delay integrodifferential systems

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Abstract

In this paper, we present the sufficient conditions ensuring the instability of the zero solution of an impulsive state dependent delay integrodifferential system for different conditions on the delay function. We assume the instability of the associated linear impulsive system and apply the idea of dichotomies together with Schauder-Tychonoff theorem to establish the sufficient conditions for the unstable solution of the problem. © 2009 Elsevier Ltd. All rights reserved.

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(h, k)-dichotomies; Impulsive integrodifferential system; State dependent delay

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