

Functionally Equivalent Impulsive Systems with Delays
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In general, the possibility of reducing impulsive differential systems with delays into impulsive differential systems without delays in such a way that they have in common almost all the periodic solutions is still ambiguous and even hard to carry out. However, in the case when the delays satisfy certain functional relations, this property becomes possible and could be achieved. In this paper, we introduce the definition of functional equivalence for impulsive differential systems with delays and present a series of consequences on the existence of periodic solutions of these systems. Moreover, some generalizations of the main results are obtained.