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Generalized invariance principles for switched delay systems. (English) Zbl 1216.93090
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Summary: The classical LaSalle's invariance principle for ordinary differential equations is extended to switched delay systems. Generalized invariance principles are established, using both multiple Lyapunov functionals and multiple Lyapunov-Razumikhin functions. As an important application, stability criteria for switched delay systems are obtained.

MSC:

[93D30](#) Lyapunov and storage functions

[93C30](#) Control/observation systems governed by functional relations other than differential equations (such as hybrid and switching systems)

[93C15](#) Control/observation systems governed by ordinary differential equations

Cited in 4 Documents

Keywords:

switched systems delay systems hybrid systems; invariance principles stability multiple Lyapunov functionals multiple Lyapunov-Razumikhin functions

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