LYAPUNOV TECHNIQUES FOR STABILIZATION OF SWITCHED LINEAR SYSTEMS OF CONSERVATION LAWS
– talk –

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In this paper, the exponential stability in L^2-norm is investigated for a class of switched linear systems of conservation laws. The state equations and the boundary conditions are both subject to switching. We consider the problem of synthesizing stabilizing switching controllers. By means of Lyapunov techniques, three control strategies are developed based on steepest descent selection, possibly combined with a hysteresis and a low-pass filter. Some numerical examples are considered to illustrate our approach and to show the merits of the proposed strategies.

References

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