

BOUNDARY OBSERVERS FOR LINEAR AND QUASI-LINEAR
HYPERBOLIC SYSTEMS

– talk –

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In this work we consider the problem of boundary observer design for one-dimensional first order linear and quasi-linear strict hyperbolic systems with n rightward convecting transport PDEs. By means of Lyapunov based techniques, we derive some sufficient conditions for exponential boundary observer design using only the information from the boundary control and the boundary conditions. We consider static as well as dynamic boundary controls for the boundary observer design. The main results are illustrated on the model of an inviscid incompressible flow.

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