Jarmo Malinen: *Conservativity of Time-Flow Invertible and Boundary Control Systems*; Helsinki University of Technology, Institute of Mathematics, Research Reports A479 (2004).

Abstract: *We give sufficient and necessary conditions for a boundary control system (in the sense of Salamon) to define a Livšic – Brodskiĭ operator node; that is, a linear (scattering) conservative system. This appears to be a special case of a more general result involving time-flow invertible linear systems. We show the following result of "entropy type": the dual system of a conservative boundary control system is always a boundary control system. Five PDE examples are given to illuminate how these operator theory techniques apply to (rather simple) concrete problems. In particular, a fairly complete example on the n-dimensional wave equation is given.*

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