

**Jinhai, Yan****Contrôlabilité exacte pour des domaines minces. (Exact controllability for thin domains).**(French) [Zbl 0795.93016](#)[Asymptotic Anal.](#) 5, No. 5, 461-471 (1992).

This note studies the exact controllability of hyperbolic systems on a thin domain  $\Omega \times (0, \varepsilon) \subset \mathbb{R}^{n+1}$  using an optimal control approach due to J. L. Lions. This method gives rise to an operator  $\Lambda_\varepsilon$  mapping the initial values of an associated boundary value problem (without controls) to the ‘final’ values of a dual problem in reverse time. However, as  $\varepsilon \rightarrow 0$ , the operators  $\Lambda_\varepsilon$  do not tend to the corresponding operator  $\Lambda$  for the  $n$ -dimensional domain  $\Omega$ . The author introduces a modification of the operators so as to obtain the desired limit behaviour. Unfortunately the note is not easily readable: It consists of a sequence of 86 formulae with a minimum of interconnecting text in between.

Reviewer: [D.Hinrichsen \(Bremen\)](#)**MSC:**[93B05](#) Controllability[93C20](#) Control/observation systems governed by partial differential equationsCited in **1** Document**Keywords:**[exact controllability](#); [hyperbolic systems](#)