1125-93-2674 **Scott Hansen*** (shansen@iastate.edu), Department of Mathematics, Iowa State University, Ames, IA 50011, and **Marius Tucsnak**. *Exact Boundary Controllability as a Limit of Distributed Control Problems in Wave Systems.*

As is well known, for wave type systems, exact controllability and exponential stabilizability are closely related. In particular, Russell's principle (RP) asserts that for time reversible systems, exponential stabilizability implies exact controllability. Moreover RP provides a construction of the corresponding controls. In this work utilize RP-based controls to study the behavior as $\epsilon \to 0$ of solutions corresponding to locally distributed controls supported in an ϵ neighborhood of an endpoint of an interval. Examples focus on the 1-d wave equation, but we also describe a general abstract result that may apply to a variety of similar problems. (Received September 20, 2016)