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Sommario/riassunto	This book provides a comprehensive overview of the exact boundary controllability of nodal profile, a new kind of exact boundary controllability stimulated by some practical applications. This kind of controllability is useful in practice as it does not require any precisely given final state to be attained at a suitable time t=T by means of boundary controls, instead it requires the state to exactly fit any given demand (profile) on one or more nodes after a suitable time t=T by means of boundary controls. In this book we present a general discussion of this kind of controllability for general 1-D first order quasilinear hyperbolic systems and for general 1-D quasilinear wave equations on an interval as well as on a tree-like network using a

modular-structure construtive method, suggested in LI Tatsien's monograph "Controllability and Observability for Quasilinear Hyperbolic Systems"(2010), and we establish a complete theory on the local exact boundary controllability of nodal profile for 1-D quasilinear hyperbolic systems.