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Nota di contenuto	Approximate solutions of nonlinear conservation laws -- An introduction to the Discontinuous Galerkin method for convection-dominated problems -- Adaptive finite element methods for conservation laws -- Essentially non-oscillatory and weighted essentially non-oscillatory schemes for hyperbolic conservation laws.
Sommario/riassunto	This volume contains the texts of the four series of lectures presented by B.Cockburn, C.Johnson, C.W. Shu and E.Tadmor at a C.I.M.E. Summer School. It is aimed at providing a comprehensive and up-to-date presentation of numerical methods which are nowadays used to solve nonlinear partial differential equations of hyperbolic type, developing shock discontinuities. The most effective methodologies in the framework of finite elements, finite differences, finite volumes spectral methods and kinetic methods, are addressed, in particular high-order

shock capturing techniques, discontinuous Galerkin methods, adaptive techniques based upon a-posteriori error analysis.