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Sommario/riassunto	This is a masterly exposition and an encyclopedic presentation of the theory of hyperbolic conservation laws. It illustrates the essential role of continuum thermodynamics in providing motivation and direction for the development of the mathematical theory while also serving as the principal source of applications. The reader is expected to have a certain mathematical sophistication and to be familiar with (at least) the rudiments of analysis and the qualitative theory of partial differential equations, whereas prior exposure to continuum physics is not required. The target group of readers would consist of (a) experts in the mathematical theory of hyperbolic systems of conservation laws who wish to learn about the connection with classical physics; (b) specialists in continuum mechanics who may need analytical tools; (c)

experts in numerical analysis who wish to learn the underlying mathematical theory; and (d) analysts and graduate students who seek introduction to the theory of hyperbolic systems of conservation laws. This new edition places increased emphasis on hyperbolic systems of balance laws with dissipative source, modeling relaxation phenomena. It also presents an account of recent developments on the Euler equations of compressible gas dynamics. Furthermore, the presentation of a number of topics in the previous edition has been revised, expanded and brought up to date, and has been enriched with new applications to elasticity and differential geometry. The bibliography, also expanded and updated, now comprises close to two thousand titles. From the reviews of the 3rd edition: "This is the third edition of the famous book by C.M. Dafermos. His masterly written book is, surely, the most complete exposition in the subject." Evgeniy Panov, Zentralblatt MATH "A monumental book encompassing all aspects of the mathematical theory of hyperbolic conservation laws, widely recognized as the "Bible" on the subject." Philippe G. LeFloch, Math. Reviews.