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Nota di bibliografia	Includes bibliographical references (p. 295-300) and index.
Nota di contenuto	pt. 1. Caratheodory dimension characteristics -- pt. 2. Applications to dimension theory and dynamical systems.
Sommario/riassunto	The principles of symmetry and self-similarity structure nature's most beautiful creations. For example, they are expressed in fractals, famous for their beautiful but complicated geometric structure, which is the subject of study in dimension theory. And in dynamics the presence of invariant fractals often results in unstable "turbulent-like" motions and is associated with "chaotic" behavior. In this book, Yakov Pesin introduces a new area of research that has recently appeared in the interface between dimension theory and the theory of dynamical systems. Focusing on invariant fractals and their influence on stochastic properties of systems, Pesin provides a comprehensive and systematic treatment of modern dimension theory in dynamical systems, summarizes the current state of research, and describes the most important accomplishments of this field. Pesin's synthesis of these subjects of broad current research interest will be appreciated both by advanced mathematicians and by a wide range of scientists who depend upon mathematical modeling of dynamical processes.