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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Turbulent Chaos and Self-organization in Space and Natural Environments -- Basics of Mathematical Modeling of Reactive Gas Mixtures -- Closed System of Hydrodynamic Equations for the Description of Turbulent Motion of Multicomponent Media -- Differential Models of Closure of the Averaged Hydrodynamic Equations for the Turbulent Chemically-active Continuous Medium.-Stochastic-thermodynamic Modeling of the Developed Structural Turbulence -- Self-organization of the Developed Turbulence and Mechanisms of Coherent Structure Formation -- Basics of Heterogeneous Mechanics with Applications to Accretion Discs -- Influence of Hydrodynamic Spirality on Turbulence Evolution in the Accretion Disc -- Thermodynamic Model of Magnetohydrodynamic (MGD) Turbulence and Some Application to the Accretion Discs.
Sommario/riassunto	This book focuses on the development of continuum models of natural turbulent media. It provides a theoretical approach to the solutions of different problems related to the formation, structure and evolution of astrophysical and geophysical objects. A stochastic modeling approach is used in the mathematical treatment of these problems, which reflects self-organization processes in open dissipative systems. The authors also consider examples of ordering for various objects in

space throughout their evolutionary processes. This volume is aimed at graduate students and researchers in the fields of mechanics, astrophysics, geophysics, planetary and space science.