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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction -- Basic Quantities Related to Disk Oscillations -- Derivation of Linear Wave Equations and Wave Energy -- Vertical Oscillations -- Disk Oscillations in Radial Direction -- Classification of Oscillations and Their Characteristics -- Frequencies of Trapped Oscillations and Application -- Two Examples of Further Studies on Trapped Oscillations and Application -- Overstability of Oscillations by Viscosity -- Corotation Instability -- Wave-Wave Resonant Instability in Deformed Disks -- Wave-Wave Resonant Instability in Deformed Disks - Applications -- Sonic Point Instability and Stochastic Excitation of Oscillations by Turbulence. .
Sommario/riassunto	This book presents the current state of research on disk oscillation theory, focusing on relativistic disks and tidally deformed disks. Since the launch of the Rossi X-ray Timing Explorer (RXTE) in 1996, many high-frequency quasiperiodic oscillations (HFQPOs) have been observed in X-ray binaries. Subsequently, similar quasi-periodic oscillations have been found in such relativistic objects as microquasars, ultra-luminous

X-ray sources, and galactic nuclei. One of the most promising explanations of their origin is based on oscillations in relativistic disks, and a new field called discoseismology is currently developing. After reviewing observational aspects, the book presents the basic characteristics of disk oscillations, especially focusing on those in relativistic disks. Relativistic disks are essentially different from Newtonian disks in terms of several basic characteristics of their disk oscillations, including the radial distributions of epicyclic frequencies. In order to understand the basic processes of disk oscillations, studies on binary systems are of importance, as they offer valuable information on wave–wave coupling processes in disk oscillations. Accordingly, some characteristics of oscillations in deformed disks are also presented in this book. The book consists of two parts. Points covered in Part I include, for instance, the basic characteristics of disk oscillations, classification of oscillation modes, and trapping of oscillations. In Part II, the focus is mainly on excitation processes of oscillations, while applications to observations are also discussed.