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Soggetti	Acoustics Acoustical engineering Vibration Dynamical systems Dynamics Noise control Remote sensing Buildings—Design and construction Building Construction Engineering, Architectural Engineering Acoustics Vibration, Dynamical Systems, Control Noise Control Remote Sensing/Photogrammetry Building Construction and Design
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Nota di contenuto	Foreword -- Preface to the Third Edition -- Preface to the First Edition -- About the Author -- List of Symbols -- Chapter 1 The Wave Theory of Sound -- Chapter 2 Quantitative Measures of Sound -- Chapter 3 Reflection, Transmission, and Excitation of Plane Waves -- Chapter 4 Radiation from Vibrating Bodies -- Chapter 5 Radiation from Sources Near and on Solid Surfaces -- Chapter 6 Room Acoustics -- Chapter 7

Low-Frequency Models of Sound Transmission -- Chapter 8 Ray Acoustics -- Chapter 9 Scattering and Diffraction -- Chapter 10 Effects of Viscosity and Other Dissipative Processes -- Chapter 11 Nonlinear Effects in Sound Propagation -- Appendix -- Indexes -- Name Index -- Subject Index.

Sommario/riassunto

This corrected version of the landmark 1981 textbook introduces the physical principles and theoretical basis of acoustics with deep mathematical rigor, concentrating on concepts and points of view that have proven useful in applications such as noise control, underwater sound, architectural acoustics, audio engineering, nondestructive testing, remote sensing, and medical ultrasonics. Since its publication, this text has been used as part of numerous acoustics-related courses across the world, and continues to be used widely today. During its writing, the book was fine-tuned according to insights gleaned from a broad range of classroom settings. Its careful design supports students in their pursuit of a firm foundation while allowing flexibility in course structure. The book can easily be used in single-term or full-year graduate courses and includes problems and answers. This rigorous and essential text is a must-have for any practicing or aspiring acoustician. Praise for the 1981 edition: "Without question this volume will take its place among the more prominent texts for advanced courses on fundamental acoustical theory and applications. The student who masters it should have no difficulty facing with assurance the current problems in acoustical technology." — R. Bruce Lindsay, Brown University in The Journal of the Acoustical Society of America Features a wealth of end-of-chapter problems and answers Written by the former Editor-in-Chief of the Acoustical Society of America Represents essential reading for all practicing and aspiring acousticians Facilitates instructional flexibility regarding topics covered, length of course, and interests of students Includes a new foreword and preface speaking to the book's continuing importance.