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Nota di contenuto	Frontmatter -- Preface -- Foreword -- Contents -- Chapter 1. Introduction -- Chapter 2. Basic Concepts and Processing Methods -- Chapter 3. Sound Propagation in Atmosphere - Refraction and Reflection -- Chapter 4. Sound Scattering and Diffraction in Atmosphere -- Chapter 5. Sound Absorption in Atmosphere -- Chapter 6. Effects from Gravity Field and Earth's Rotation -- Chapter 7. Computational Atmospheric Acoustics -- Chapter 8. Acoustic Remote Sensing for the Atmosphere -- Part One. Acoustic remote sensing for the lower atmosphere (troposphere) -- Part Two. Acoustic remote sensing for the upper atmosphere -- Chapter 9. Non-linear Atmospheric Acoustics -- Chapter 10. Sound Sources in Atmosphere -- References
Sommario/riassunto	This book concisely expounds the fundamental concepts, phenomena, theories and procedures in a complete and systematic sense. In this book, not only almost all the important achievements from predecessors but also the contributions from the author himself have been summed up profoundly. Starting from the derivation of fundamental equations, various classical acoustical phenomena such as reflection, refraction, scattering diffraction and absorption in

atmosphere, as well as the influences of gravitation and rotation of the earth on the behaviors of different atmospheric waves including acoustic waves, have been discussed in viewpoints of wave acoustics and geometrical acoustics respectively. The recent developments of several computation methods in the field of atmospheric acoustics have been introduced in some detail. As for the application aspects, atmospheric remote sensing has been discussed from the angle of inverse problems.