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Nota di contenuto	Chapter 1: Elements of Continuum Mechanics for Fluid Flow and General Stress and Strain System -- Chapter 2: Elementary Aerodynamics -- Chapter 3: Governing Equations for Fluid Flow and Acoustics -- Chapter 4: Computational Aerodynamics -- Chapter 5: Post-Processing of Computing Results -- Chapter 6: Acoustic Wave Equation -- Chapter 7: Reflection, Transmission, Radiation of Acoustic Waves -- Chapter 8: Computational Aeroacoustics.
Sommario/riassunto	Recent advances in scientific computing have caused the field of aerodynamics to change at a rapid pace, simplifying the design cycle of aerospace vehicles enormously – this book takes the readers from core concepts of aerodynamics to recent research, using studies and real-

life scenarios to explain problems and their solutions. This book presents in detail the important concepts in computational aerodynamics and aeroacoustics taking readers from the fundamentals of fluid flow and aerodynamics to a more in-depth analysis of acoustic waves, aeroacoustics, computational modelling and processing. This book will be of use to students in multiple branches of engineering, physics and applied mathematics. Additionally, the book can also be used as a text in professional development courses for industry engineers and as a self-help reference for active researchers in both academia and the industry.