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Livello bibliografico	Monografia
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Nota di contenuto	<p>""Front Cover""; ""Computational Fluid Dynamics: Principles and Applications""; ""Copyright""; ""Contents""; ""Acknowledgments""; ""List of Symbols""; ""Abbreviations""; ""Chapter 1: Introduction""; ""Chapter 2: Governing Equations""; ""2.1 The Flow and Its Mathematical Description""; ""2.1.1 Finite control volume""; ""2.2 Conservation Laws""; ""2.2.1 The continuity equation""; ""2.2.2 The momentum equation""; ""2.2.3 The energy equation""; ""2.3 Viscous Stresses""; ""2.4 Complete System of the Navier-Stokes Equations""; ""2.4.1 Formulation for a perfect gas""</p> <p>""2.4.2 Formulation for a real gas""""2.4.3 Simplifications to the Navier-Stokes equations""; ""Thin shear layer approximation""; ""Parabolized Navier-Stokes equations""; ""Euler equations""; ""References"";</p> <p>""Chapter 3: Principles of Solution of the Governing Equations""; ""3.1 Spatial Discretization""; ""3.1.1 Finite-difference method""; ""3.1.2 Finite-volume method""; ""3.1.3 Finite-element method""; ""3.1.4 Other discretization methods""; ""Spectral-element method""; ""Lattice Boltzmann method""; ""Gridless method""; ""3.1.5 Central and upwind schemes""; ""Central schemes""</p> <p>""Upwind schemes""""Flux-vector splitting schemes""; ""Flux-difference</p>

splitting schemes"; "TVD Schemes"; "Fluctuation-splitting schemes";
"Solution reconstruction"; "First- and second-order schemes";
"ENO/WENO Schemes"; "Central versus upwind schemes"; "Upwind
schemes for real gas flows"; "3.2 Temporal Discretization"; "3.2.1
Explicit schemes"; "3.2.2 Implicit schemes"; "3.3 Turbulence
Modeling"; "3.4 Initial and Boundary Conditions"; "References";
"Chapter 4: Structured Finite-Volume Schemes"; "4.1 Geometrical
Quantities of a Control Volume"
"4.1.1 Two-dimensional case"; "4.1.2 Three-dimensional case"; "4.2
General Discretization Methodologies"; "4.2.1 Cell-centered scheme";
"4.2.2 Cell-vertex scheme: overlapping control volumes"; "4.2.3 Cell-
vertex scheme: dual control volumes"; "4.2.4 Cell-centered versus
cell-vertex schemes"; "4.3 Discretization of the Convective Fluxes";
"4.3.1 Central scheme with artificial dissipation"; "Scalar dissipation
scheme"; "Matrix dissipation scheme"; "4.3.2 Flux-vector splitting
schemes"; "Van Leer's scheme"; "AUSM"; "CUSP scheme"
"4.3.3 Flux-difference splitting schemes"; "Roe upwind scheme";
"4.3.4 Total variation diminishing schemes"; "Upwind TVD scheme";
"4.3.5 Limiter functions"; "Limiter functions for MUSCL
interpolation"; "MUSCL scheme with $\theta=0$ "; "MUSCL scheme with
 $\theta=1/3$ "; "Limiter for CUSP scheme"; "Limiter for TVD scheme"; "4.4
Discretization of the Viscous Fluxes"; "4.4.1 Cell-centered scheme";
"4.4.2 Cell-vertex scheme"; "References"; "Chapter 5: Unstructured
Finite-Volume Schemes"; "5.1 Geometrical Quantities of a Control
Volume"; "5.1.1 Two-dimensional case"
"Triangular element"

Sommario/riassunto

Computational Fluid Dynamics: Principles and Applications, Third Edition presents students, engineers, and scientists with all they need to gain a solid understanding of the numerical methods and principles underlying modern computation techniques in fluid dynamics. By providing complete coverage of the essential knowledge required in order to write codes or understand commercial codes, the book gives the reader an overview of fundamentals and solution strategies in the early chapters before moving on to cover the details of different solution techniques. This updated edition includes new

2. Record Nr.	UNINA9911019339803321
Autore	Lawson Andrew (Andrew B.)
Titolo	An introductory guide to disease mapping
Pubbl/distr/stampa	[Place of publication not identified], : John Wiley, 2001
ISBN	1-280-55450-9 9786610554508 0-470-36146-8 0-470-85398-0 0-470-84257-1
Edizione	[1st ed.]
Descrizione fisica	1 online resource (140 pages)
Disciplina	614.42
Soggetti	Geography Investigative Techniques Statistics as Topic Public Health Environment and Public Health Earth Sciences Health Care Evaluation Mechanisms Delivery of Health Care Quality of Health Care Natural Science Disciplines Health Care Quality, Access, and Evaluation Cluster Analysis Epidemiologic Methods Topography, Medical Health & Biological Sciences Medical Geography
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Livello bibliografico	Monografia
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Sommario/riassunto	This superb introductory guide explains the basic principles underlying

the construction and analysis of disease maps. Growing public awareness of environmental hazards has increased the demand for investigations into the geographical distribution of disease and as data resulting from studies is not always straightforward to interpret, there has been a need for an accessible, clearly written introduction to the subject. This book supplies the reader with an array of tools and skills so that maps may be produced and correctly interpreted, and also describes the role of disease mapping within epidemiology, highlighting its important role in studies of environmental health and environmental epidemiology. It provides:

- * An introduction to new developments in disease mapping
- * Comprehensive coverage of an active area of research and development
- * Numerous case studies to highlight the application of the techniques discussed

This text will be invaluable to anyone with an interest in disease mapping, and is an essential volume for both the specialist and the non-specialist. It is of particular relevance to epidemiologists, medical statisticians, geographers, and public health advisors, as well as environmental health workers, occupational health physicians, and infectious disease specialists.
