1.	Record Nr.	UNINA9910789064803321
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	Titolo	Essential computational fluid dynamics [[electronic resource] /] / Oleg Zikanov
	Pubbl/distr/stampa	Hoboken, N.J., : Wiley, c2010
	ISBN	1-118-17439-9
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	Edizione	[1st ed.]
	Descrizione fisica	1 online resource (320 p.)
	Disciplina	532/.0501515
	Soggetti	Fluid dynamics - Mathematics
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Essential Computational Fluid Dynamics; Contents; Preface; 1 What Is CFD?; 1.1. Introduction; 1.2. Brief History of CFD; 1.3. Outline of the Book; References and Suggested Reading; I Fundamentals; 2 Governing Equations of Fluid Dynamics and Heat Transfer; 2.1. Preliminary Concepts; 2.2. Mass Conservation; 2.3. Conservation of Chemical Species; 2.4. Conservation of Momentum; 2.5. Conservation of Energy; 2.6. Equation of State; 2.7. Equations in Integral Form; 2.8. Equations in Conservation Form; 2.9. Equations in Vector Form; 2.10. Boundary Conditions; 2.10.1. Rigid Wall Boundary Conditions 2.10.2. Inlet and Exit Boundary Conditions2.10.3. Other Boundary Conditions; References and Suggested Reading; Problems; 3 Partial Differential Equations; 3.1. Model Equations; Formulation of a PDE Problem; 3.1.1. Model Equations; 3.1.2. Domain, Boundary, and Initial Conditions; 3.1.3. Equilibrium and Marching Problems; 3.1.4. Examples; 3.2. Mathematical Classification of PDE of Second Order; 3.2.1. Classification; 3.2.2. Hyperbolic Equations; 3.2.3. Parabolic Equations; 3.2.4. Elliptic Equations; 3.3. Numerical Discretization: Different Kinds of CFD; 3.3.1. Spectral Methods 4.2.7. Truncation Error of Linear Interpolation4.3. Approximation of Partial Differential Equations; 4.3.1. Approach and Examples; 4.3.2. Interpretation of Truncation Error: Numerical Dissipation and

Dispersion; 4.3.3. Boundary and Initial Conditions; 4.3.4. Consistency of Numerical Approximation; 4.3.5. System of Difference Equations; 4.3.6. Implicit and Explicit Methods; 4.4. Development of Finite Difference Schemes; 4.4.1. Taylor Series Expansions; 4.4.2. Polynomial Fitting; References and Suggested Reading; Problems; 5 Finite Volume Method; 5.1. Introduction and Integral Formulation
5.1.1. Finite Volume Grid5.1.2. Global Conservation Property; 5.2. Approximation of Integrals; 5.2.1. Volume Integrals; 5.2.2. Surface Integrals; 5.3. Methods of Interpolation; 5.3.1. Upwind Interpolation; 5.3.2. Linear Interpolation; 5.3.3. Upwind Interpolation of Higher Order; 5.3.4. Interpolation on Nonorthogonal Grids; 5.4. Boundary Conditions; References and Suggested Reading; Problems; 6 Stability of Transient Solutions; 6.1. Introduction and Definition of Stability; 6.1.1. Discretization and Round-off Error; 6.1.2. Definition; 6.2. Stability Analysis; 6.2.1. Neumann Method
6.2.2. Matrix Method

| Sommario/riassunto | "This book serves as a complete and self-contained introduction to the principles of Computational Fluid Dynamic (CFD) analysis. It is deliberately short (at approximately 300 pages) and can be used as a text for the first part of the course of applied CFD followed by a software tutorial. The main objectives of this non-traditional format are: 1) To introduce and explain, using simple examples where possible, the principles and methods of CFD analysis and to demystify the 'black box' of a CFD software tool, and 2) To provide a basic understanding of how CFD problems are set and which factors affect the success and failure of the analysis. Included in the text are the mathematical and physical foundations of CFD, formulation of CFD problems, basic principles of numerical approximation (grids, consistency, convergence, stability, and order of approximation, etc), methods of discretization with focus on finite difference and finite volume techniques, methods of solution of transient and steady state problems, commonly used numerical methods for heat transfer and fluid flows, plus a brief introduction into turbulence modeling. A solutions manual will be provided for instructor's use."--BOOK JACKET. |

2.

Record Nr.	UNINA9910894781303321
Titolo	Verzeichnis der anwesenden u. durchreisenden Fremden zu Bad Ems
Pubbl/distr/stampa	Ems, : Sommer, 1848-1848
Descrizione fisica	Online-Ressource
Classificazione	710970850130140
Disciplina	914.3
	943
Soggetti	Kurgast
	Zeitschrift
	Verzeichnis
	Bad Ems
Lingua di pubblicazione	Tedesco
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	Gesehen am: 08.09.10

3.	Record Nr.	UNISA996695948103316
	Autore	Clark
	Titolo	Lying-vvonders, Or Rather The Vvonderful-lyes : Which Was Lately Published To The World, In A Lying-pamphlet, (called Strange And True News From Gloucester) Containing A Relation Of The Wonderful Power Of God, Shewed For Injustice At Fairford, By Frogs And Toads And In The Sudden Death Of The Clarks Daughter At Brokington In Gloucestershire. Presented To The View Of The World, With Some Observations In The End On Another Such Like Pamphlet (the Lords Loud Call To England) I. That The Subtilty Of Deluders May Be Discerned. Ii. That The Simple May From Their Delusions Be Preserved. Iii. That The Lovers Of Truth May Be Strengthned. Iv. That All Men About These Wonders May Be Satisfied
	Pubbl/distr/stampa	ProQuest, UMI, 1660
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia