

1. Record Nr.	UNISA996386278603316
Autore	Allestree Richard <1619-1681.>
Titolo	The whole duty of man [[electronic resource]] : laid down in a plain and familiar way for the use of all, bur especially the meanest reader : divided into XVII chapters, one whereof being read every Lord's Day the whole may be read over thrice in the year : necessary for all families : with Private devotions for several occasions
Pubbl/distr/stampa	London, : Printed by R. Norton for George Pawlet ..., 1689
Descrizione fisica	[24], 372 p
Altri autori (Persone)	PakingtonDorothy Coventry, Lady, <d. 1679.> SterneRichard <1596?-1683.> FellJohn <1625-1686.> HenchmanHumphrey <1592-1675.>
Soggetti	Christian life Devotional exercises
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Written by Richard Allestree. Cf. DNB. Also variously ascribed to Lady Dorothy Pakington, Richard Sterne, John Fell, Hunphrey Henchman, and others. Cf. DNB. Imperfect: "Private devotions" lacking. Reproduction of original in Bodleian Library.
Sommario/riassunto	eebo-0014

2. Record Nr.	UNINA9910760268503321
Autore	Danaila Ionut
Titolo	An Introduction to Scientific Computing : Fifteen Computational Projects Solved with MATLAB // by Ionut Danaila, Pascal Joly, Sidi Mahmoud Kaber, Marie Postel
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-35032-4
Edizione	[2nd ed. 2023.]
Descrizione fisica	1 online resource (379 pages)
Altri autori (Persone)	JolyPascal KaberSidi Mahmoud PostelMarie
Disciplina	620.00151
Soggetti	Mathematics Mathematics - Data processing Computational intelligence Mathematical physics Numerical analysis Applications of Mathematics Computational Mathematics and Numerical Analysis Computational Intelligence Theoretical, Mathematical and Computational Physics Numerical Analysis Anàlisi numèrica Processament de dades Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Numerical Approximation of Model Partial Differential Equations -- Nonlinear Differential Equations: Application to Chemical Kinetics -- Polynomial Approximation -- Solving an Advection-Diffusion Equation by a Finite Element Method -- Solving a Differential Equation by a Spectral Method -- Signal Processing: Multiresolution Analysis -- Elasticity: Elastic Deformation of a Thin Plate -- Domain Decomposition

Using a Schwarz Method -- Geometrical Design: Bézier Curves and Surfaces -- Gas Dynamics: The Riemann Problem and Discontinuous Solutions: Application to the Shock Tube Problem -- Thermal Engineering: Optimization of an Industrial Furnace -- Fluid Dynamics: Solving the Two-Dimensional Navier-Stokes Equations.

Sommario/riassunto

This book provides fifteen computational projects aimed at numerically solving problems from a broad range of applications including Fluid Mechanics, Chemistry, Elasticity, Thermal Science, Computer Aided Design, Signal and Image Processing. For each project the reader is guided through the typical steps of scientific computing from physical and mathematical description of the problem to numerical formulation and programming and finally to critical discussion of numerical results. Considerable emphasis is placed on practical issues of computational methods. The last section of each project contains the solutions to all proposed exercises and guides the reader in using the MATLAB scripts. The mathematical framework provides a basic foundation in numerical analysis of partial differential equations and main discretization techniques, such as finite differences, finite elements, spectral methods and wavelets. The book is primarily intended as a graduate-level text in applied mathematics, but it may also be used by students in engineering or physical sciences. It will also be a useful reference for researchers and practicing engineers. The second edition builds upon its earlier material (revised and updated) with three all-new chapters intended to reinforce the presentation of mathematical aspects on numerical methods: Fourier approximation, high-order finite difference methods, and basic tools for numerical optimization. Corresponding new applications and programs concern spectral Fourier methods to solve ordinary differential equations, finite difference methods up to sixth-order to solve boundary value problems and, finally, optimization strategies to fit parameters of an epidemiological model.
