

1. Record Nr.	UNINA9910254093803321
Titolo	Trends in differential equations and applications // edited by Francisco Ortegón Gallego, María Victoria Redondo Neble, José Rafael Rodríguez Galván
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-32013-0
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (IX, 451 p. 77 illus., 67 illus. in color.)
Collana	SEMA SIMAI Springer Series, , 2199-3041 ; ; 8
Disciplina	515.35
Soggetti	Partial differential equations Differential equations Mathematical physics Computer mathematics Partial Differential Equations Ordinary Differential Equations Mathematical Applications in the Physical Sciences Computational Mathematics and Numerical Analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	1 M. J. Castro, J. M. Gallardo, A. Marquina: Approximate Osher-Solomon schemes for hyperbolic systems -- 2 G. Maicas, A.I. Muñoz, G. Galiano, A. Ben Hamza and E. Schiavi: Spectral shape analysis of the hippocampal structure for Alzheimer's Disease diagnosis -- 3 P. Alonso, J.M. Peña, M.L. Serrano: Characterizations of M-banded ASSR matrices -- 4 E. Casas, K. Chrysafinos: A review of numerical analysis for the discretization of the velocity tracking problem -- 5 G. Castiñeira and J.M. Rodríguez: Asymptotic analysis of a viscous flow in a curved pipe with elastic walls -- 6 J. Mura and A. Caiazzo: A two-scale homogenization approach for the estimation of porosity in elastic media -- 7 J. M. Carnicer, Y. Khier and J. M. Pena: A matrix approach to the Newton formula and divided differences -- 8 B. Climent-Ezquerria and F. Guillen-Gonzalez: Long-time behavior of a Cahn-Hilliard-Navier-Stokes vesicle-fluid interaction model -- 9 G. Vigliani: Explicit

blow-up time for two porous medium problems with different reaction terms -- 10 A. Domínguez-Delgado, C. Domínguez-Torres and J. Iñesta-Vaquera: Numerical Assessment of the Energy Efficiency of an Open Joint Ventilated Facade for Typical Meteorological Months Data in Southern Spain -- 11 E. Barrena, G. Laporte, F. A. Ortega, M. A. Pozo: Planning ecotourism routes in nature parks -- 12 M. Isabel García-Planas and M. Dolors Magret: Isometries of the Hamming space and equivalence relations of linear codes over a finite field -- 13 Daniela Giachetti, Pedro J. Martínez-Aparicio and François Murat: Advances in the study of singular semilinear elliptic problems -- 14 A. Baeza, P. Mulet, and D. Zorio: Weighted extrapolation techniques for finite difference methods on complex domains with Cartesian meshes -- 15 V. Domínguez and C. Turc: High order Nystrom methods for transmission problems for Helmholtz Equation -- 16 A. Algaba, N. Fuentes, C. García and M. Reyes: Algebraic inverse integrating factors for a class of generalized nilpotent systems -- 17 R. Burger, F. Guerrero, M.C. Mart and P. Mulet: WENO schemes for multi-dimensional porous media flow without capillarity -- 18 L. Fan, P. Monk, and V. Selgas: Time dependent scattering in an acoustic waveguide via convolution quadrature and the Dirichlet-to-Neumann map -- 19 M. Albareda-Sambola, L. I. Martínez-Merino and A. M. Rodríguez-Chía: Location of emergency facilities with uncertainty in the demands -- 20 P. Díaz de Alba and G. Rodriguez: Regularized solution of a nonlinear problem in applied geophysics -- 21 A. Barreras and J.M. Peña: Total positivity: a new inequality and related classes of matrices -- 22 A. Ruiz and C. Muriel: Applications of C-symmetries in the construction of solvable structures -- 23 R. de la Rosa and M. S. Bruzón: Travelling wave solutions of a generalized variable-coefficient Gardner equation -- 24 Rodolfo Bermejo and Laura Saavedra: A second order local projection Lagrange-Galerkin method for Navier-Stokes equations at high Reynolds numbers -- 25 F. Guillén-González and J. R. Rodríguez-Galvan: Finite Element approximation of Hydrostatic Stokes Equations: Review and Tests.

Sommario/riassunto

This work collects the most important results presented at the Congress on Differential Equations and Applications/Congress on Applied Mathematics (CEDYA/CMA) in Cádiz (Spain) in 2015. It supports further research in differential equations, numerical analysis, mechanics, control and optimization. In particular, it helps readers gain an overview of specific problems of interest in the current mathematical research related to different branches of applied mathematics. This includes the analysis of nonlinear partial differential equations, exact solutions techniques for ordinary differential equations, numerical analysis and numerical simulation of some models arising in experimental sciences and engineering, control and optimization, and also trending topics on numerical linear Algebra, dynamical systems, and applied mathematics for Industry. This volume is mainly addressed to any researcher interested in the applications of mathematics, especially in any subject mentioned above. It may be also useful to PhD students in applied mathematics, engineering or experimental sciences.
