1. Record Nr. UNINA9910855372003321

Autore	Beirão da Veiga Hugo
Titolo	Nonlinear Differential Equations and Applications : Portugal-Italy Conference on NDEA, Évora, Portugal, July 4–6, 2022 / / edited by Hugo Beirão da Veiga, Feliz Minhós, Nicolas Van Goethem, Luís Sanchez Rodrigues
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2024
ISBN	9783031537400
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (339 pages)
Collana	CIM Series in Mathematical Sciences, , 2364-9518 ; ; 7
Altri autori (Persone)	MinhósFeliz Van GoethemNicolas Sanchez RodriguesLuís
Disciplina	515.35
Soggetti	Differential equations Mathematical analysis Numerical analysis Operator theory Continuum mechanics Differential Equations Analysis Numerical Analysis Operator Theory Continuum Mechanics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Preface -- Some Optimal Design Problems with Perimeter Penalisation -- On a Rotational Smagorinsky model for turbulent fluids: an overview of recent results in the steady and unsteady case -- On a forward and a backward stochastic Euler equation -- Keller-Segel System: A Survey on Radial Steady States -- The Kernel of The Strain Tensor for Solenoidal Vector Fields with Homogeneous Normal Trace -- Power Law Approximation Results for Optimal Design Problems -- Long-time behaviour for solutions of systems of PDEs modeling suspension

bridges -- Positive Solutions for The Fractional P-Laplacian Via Mixed Topological and Variational Methods -- Some Remarks on The Virtual Element Method for The Linear Elasticity Problem in Mixed Form -- On the Existence and Stability of 2d Compressible Current-Vortex Sheets -- Navier-Stokes Equations with Regularized Directional Boundary Condition -- Local and Nonlocal Liquid Drop Models -- Mathematical Analysis of Turbulent Flows Through Permeable Media -- Quantitative Study of The Stabilization Parameter in The Virtual Element Method -- Geometric Optics for Surface Waves on The Plasma–Vacuum Interface: Higher Order Expansion -- Combined Numerical/Experimental Analysis for Intracranial Aneurysms in a Computational Hemodynamics Patient-Specific Framework.

Sommario/riassunto

This proceedings volume gathers selected, carefully reviewed works presented at the Portugal-Italy Conference on Nonlinear Differential Equations and Applications (PICNDEA22), held on July 4-6, 2022, at the University of Évora, Portugal. The main focus of this work lies in non-linear problems originating in applications and their treatment with numerical analysis. The reader will also find new advances on topics such as ordinary and partial differential equations, numerical analysis, topological and variational methods, fluid mechanics, operator theory, stability, and more. The Portugal-Italy Conference on Nonlinear Differential Equations and Applications convenes Italian and Portuguese researchers in differential equations and their applications to amplify previous collaboration and to follow and discuss new topics in the area. Reflecting the increasing teamwork involving the two mathematical communities, the conference has been opened to researchers from all nationalities. While researchers in analysis and related fields are the primary readership of this volume, PhD students can rely on this book as a valuable source to keep pace with recent advances in differential equations and cutting-edge applications.