

1. Record Nr.	UNINA9910874691103321
Autore	Constanda C (Christian)
Titolo	Exact and Approximate Solutions for Mathematical Models in Science and Engineering // edited by Christian Constanda, Paul J. Harris, Bardo E. J. Bodmann
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Birkhäuser, , 2024
ISBN	9783031595912 9783031595905
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (189 pages)
Collana	Trends in Mathematics, , 2297-024X
Altri autori (Persone)	HarrisPaul J BodmannBardo E. J
Disciplina	515.45
Soggetti	Integral equations Numerical analysis Mathematical models Mathematics - Data processing Integral Equations Numerical Analysis Mathematical Modeling and Industrial Mathematics Computational Science and Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	On Spectroscopy of Sampled Signals Using the Hilbert Transform (Bodmann) -- Approximation of Solution for Bending of an Elastic Plate: Interior vs Exterior Cases (Constanda) -- A PDE method for modelling the soil temperature of cropfields with data from Wireless Sensor Networks (Fresneda-Portillo) -- Extreme cases in boundary homogenization for the linear elasticity system (Perez-Martinez) -- A Model of the Spread of a Disease Through a Population With Different Age Groups (Harris) -- A survey on the boundary behavior of the double layer potential in Schauder spaces in the frame of an abstract approach (Cristoforis) -- The Dirichlet Problem on Rough Domains and Herz Spaces (Mitrea) -- Analytical Solution of Slug Low Salinity Waterflooding (Pires) -- PN synthetic acceleration for the source

iteration scheme in slab-geometry discrete ordinates transport calculations (Barros) -- Dynamic iteration error analysis (Zubik-Kowal).

Sommario/riassunto

This contributed volume collects papers presented during a special session on integral methods in science and engineering at the 2023 International Conference on Computational and Mathematical Methods in Science and Engineering (CMMSE), held in Cadiz, Spain from July 3-8, 2023. Covering the applications of integral methods to scientific developments in a variety of fields, the chapters in this volume are written by well-known researchers in their respective disciplines and present new results in both pure and applied mathematics. Each chapter shares a common methodology based on a combination of analytic and computational tools, an approach that makes this collection a valuable, multidisciplinary reference on how mathematics can be applied to various real-world processes and phenomena.
