1. Record Nr. UNINA9910360850003321

Titolo	Fractional Calculus : ICFDA 2018, Amman, Jordan, July 16-18 / / edited by Praveen Agarwal, Dumitru Baleanu, YangQuan Chen, Shaher Momani, José António Tenreiro Machado
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2019
ISBN	981-15-0430-X
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (251 pages)
Collana	Springer Proceedings in Mathematics & Statistics, , 2194-1009 ; ; 303
Disciplina	515
Soggetti	Integral transforms Operational calculus Differential equations Operator theory Integral Transforms, Operational Calculus Ordinary Differential Equations Operator Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	R. El-Khazali, Closed-Form Discretization of Fractional-Order Differential and Integral Operators -- J. A. Tenreiro Machado, On fractional-order characteristics of vegetable tissues and edible drinks -- R. Leandre, Some relations between bounded below elliptic Operators and Stochastic Analysis -- R. R. Nigmatullin Kazan, discrete geometrical invariants: how to differentiate the pattern sequences from the tested ones? -- H. Benaouda, Nonlocal conditions for Semilinear Fractional Differential Equations with Hilfer derivative -- R. Mel´cio, Offshore wind system in the way of Energy 4.0: ride through fault aided by fractional PI control and VRFB -- O. Abu Arqub, Soft numerical algorithm with convergence analysis for time-fractional partial IDEs constrained by Neumann conditions -- R. El-Khazali, Approximation of Fractional-order Operators -- S. Momani, Multistep approach for nonlinear fractional Bloch system using Adomian decomposition techniques -- E. A. Abdel-Rehim, Simulation of the Space–Time Fractional Ultrasound Waves with Attenuation in Fractal Media -- P.

Agarwal, Certain Properties of Konhauser Polynomial via generalized Mittag-Leffler Function -- P. Agarwal, An Effective Numerical Technique Based on the Tau Method for the Eigenvalue Problems -- P. Agarwal, On hermite-hadamard type inequalities for co-ordinated convex mappings utilizing generalized fractional integrals.

Sommario/riassunto

This book collects papers presented at the International Conference on Fractional Differentiation and its Applications (ICFDA), held at the University of Jordan, Amman, Jordan, on 16–18 July 2018. Organized into 13 chapters, the book discusses the latest trends in various fields of theoretical and applied fractional calculus. Besides an essential mathematical interest, its overall goal is a general improvement of the physical world models for the purpose of computer simulation, analysis, design and control in practical applications. It showcases the development of fractional calculus as an acceptable tool for a large number of diverse scientific communities due to more adequate modeling in various fields of mechanics, electricity, chemistry, biology, medicine, economics, control theory, as well as signal and image processing. The book will be a valuable resource for graduate students and researchers of mathematics and engineering.