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Nota di contenuto	Existence Results for Impulsive Partial Functional Fractional Differential Equation with State Dependent Delay -- A Novel Method for Solving Nonlinear Jerk Equations -- Solving a New Type of Fractional Differential Equation by Reproducing Kernel Method -- An Efficient Approach for the Model of Thrombin Receptor Activation Mechanism with Mittag-Leffler Function -- Stability Analysis of Bifurcated Limit Cycles in a Labor Force Evolution Model -- Existence and Uniqueness Results of Fractional Differential Equations with Fuzzy Data -- Approximate Efficient Solutions of Nonsmooth Vector Optimization Problems Via Approximate Vector Variational Inequalities -- Existence of Entropy Solutions for Anisotropic Elliptic Nonlinear Problem in Weighted Sobolev Spaces -- Well-posedness and Stability for the Viscous Primitive Equations of Geophysics in Critical Fourier-Besov-Morrey Spaces -- Regional controllability of a Class of Time-Fractional

Systems -- Quadratic Optimal Control for Bilinear Systems -- Regional Observability of Linear Fractional Systems Involving Riemann-Liouville Fractional Derivative -- Stability Analysis of Fractional Differential Systems Involving Riemann–Liouville derivative -- Deformed Joint Free Distributions of Semicircular Elements Induced by Multi Orthogonal Projections.

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Sommario/riassunto

This book is a collection of original research papers as proceedings of the 6th International Congress of the Moroccan Society of Applied Mathematics organized by Sultan Moulay Slimane University, Morocco, during 7th–9th November 2019. It focuses on new problems, applications and computational methods in the field of nonlinear analysis. It includes various topics including fractional differential systems of various types, time-fractional systems, nonlinear Jerk equations, reproducing kernel Hilbert space method, thrombin receptor activation mechanism model, labour force evolution model, nonsmooth vector optimization problems, anisotropic elliptic nonlinear problem, viscous primitive equations of geophysics, quadratic optimal control problem, multi-orthogonal projections and generalized continued fractions. The conference aimed at fostering cooperation among students, researchers and experts from diverse areas of applied mathematics and related sciences through fruitful deliberations on new research findings. This book is expected to be resourceful for researchers, educators and graduate students interested in applied mathematics and interactions of mathematics with other branches of science and engineering. .

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