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Altri autori (Persone)	BanerjeeSanto
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Nota di contenuto	Dynamical Systems: Chaos, Complexity & Fractals -- Solving Population Balance Models via a Novel Semi-Analytical Method -- Fractal Structures in some Non-linear Partial Differential Equations -- Combination Therapy for Chronic Hepatitis B Using Capsid Recycling Inhibitor -- Non-equilibrium Cytokine Dynamics For Possible Therapeutic Intervention -- Modeling the Dynamic Effects of Parathyroid Hormone Therapy on Bone Remodeling -- Local and Global Stability Analysis of a Predator-Prey System with Harvesting and Fear

Effects -- MODELING THE IMPACT OF BEHAVIORAL CHANGES ON DISEASE DYNAMICS IN PREY-PREDATOR ECO-EPIDEMIC SYSTEMS -- Analyzing Crude Oil Price Fluctuations: A Fractal Perspective -- Multifractal characterization of Weibull and Gamma probability distribution functions -- Numerical and Graphical Representations of Allelopathic Effects on Plant Populations: A Mathematical Model Using DDE -- Dynamical Analysis for the Prey-Predator Model in Beddington De-Angelis type Functional Response with Prey Refuge -- Basins of attraction in the photogravitational magnetic-binary problem with oblateness and dissipations -- Implicit numerical schemes based on the lower incomplete gamma function for solving a class of nonlinear fractional-ordinary differential equation problems arising from a stochastic process -- On a variable-order fractional parabolic problems -- Asymptotic Analysis of a Class of Singularly Perturbed Nonlinear Electromechanical Dynamic Models -- DYNAMICAL ANALYSIS OF A THREE-SPECIES DISEASED FOOD WEB MODEL WITH DIFFERENT FUNCTIONAL RESPONSES -- Nonlinear analysis of dielectric elastomer actuator -- STABILITY ANALYSIS OF DIFFUSIVE PREDATOR-PREY MODEL INVOLVING INTRA-SPECIFIC COEFFICIENTS WITH THE CONCEPT OF DIFFERENCE EQUATION -- Analytical Study of the Vibration Effects Due to Nonlinear Unbalanced Magnetic Pull in Electrical Machines under Static Eccentricity -- Cost and Durability Optimization of Metal-Sandwich Panels for Bullet Proof Armours via Explicit Dynamic Analysis -- Null controllability results for fractional dynamical systems -- Role of diffusivity of lactate on its accumulation in tumor necrotic core -- Fluid Dynamics & Nonlinear Flows -- On a Numerical Investigation of MHD Flow of a Hybrid Nanofluid with Rotation and Thermal Buoyancy Force -- Conditions for oscillation onset and flow stagnation in oscillating heat pipes -- Numerical exploration of tracer behavior in porous channels with couple stress and magnetic fields -- The time fractional Navier-Stokes-Damped equations with slip boundary conditions -- THERMAL ENERGY TRANSPORT IN CARBON NANOTUBES-WATER NANOFLUID FLOW ON AN INCLINED SURFACE: FRACTIONAL AND CLASSICAL PERSPECTIVE -- On the decay process of temperature field in a general type of turbulent flow -- Influence of homogeneous heterogeneous reaction on nanofluid flow over MHD non-Darcian with porous media in presence of linear thermal radiation -- Solute transport phenomena in a stratified fluid through a porous media with boundary reactions -- Mixing of a solute in a micropolar blood flow model through a capillary tube with an absorptive wall -- Casson Fluid Flow in a Duct with Iso-thermal Walls under the Local Thermal Non-Equilibrium Framework: Temperature Distribution -- Impacts of Hall and Ion Slip on a Casson Nanofluid of a MHD with Radiation Absorption -- Rotating Mixed Convective Casson Fluid Flow past Inclined Porous Plates with the Effects of Hall and Ion Slip, Radiation Absorption, and Diffusion Thermo -- A Numerical Analysis of MHD Micropolar Hybrid Nanofluid Flow over a Porous Stretching/Shrinking Sheet -- Deflection of a Smooth Cantilever Beam Caused by Fluid Pressure Gradient: A Numerical Investigation -- Flow-induced vibrations of a freely vibrating bidirectional square cylinder in the presence of a stationary square cylinder at a low Reynolds number -- Impact of Hall current on chemically reactive Darcy Forchheimer flow of hybrid nanofluid over moving slender needle -- On the Investigation of Interacting Fault Movement in a Viscoelastic Structure -- Non-linear velocity effects on the flow of Newtonian/non-Newtonian basefluids with magnetic/non-magnetic nanoparticles over a stretching sheet embedded in a porous medium -- Local Nonsimilarity Solution for Nonlinear Convection of Casson Fluid Flow with Nonuniform Heat Source/Sink -- A numerical

analysis on heat and mass transport process in porous medium on MHD Williamson nanofluid through a permeable extending surface -- Numerical study of the Effects of Geometric Parameters on Ferrofluid Mixed Convection in a Porous Rectangular Vented Enclosure -- Thermo-Solutal Marangoni Convection in Maxwell Nanofluid Flow Through Darcy-Forchheimer Porous Medium -- The Investigation of Squeezing Flow Through a Porous Medium Between Parallel Plates Using the Homotopy Perturbation Method -- Turbulence features in a wall-wake flow downstream of two horizontal cylinders – a numerical approach -- Hydrodynamic Dispersion of Volatile Contaminant in an Open Channel Flow Using a Fitted Operator Approach.

Sommario/riassunto

This book covers the latest advancements and applications of nonlinear dynamics in various fields of science and engineering, presenting a curated selection of peer-reviewed contributions at the 2nd International Conference on Nonlinear Dynamics and Applications (ICNDA 2024) at Sikkim Manipal Institute of Technology (SMIT). Organized by the Department of Mathematics, SMIT, SMU, this international conference provides a platform for scientists, researchers, and inventors to share their findings and exchange ideas in the ever-evolving field of nonlinear dynamics. This book comprises three volumes. Volume 2 focuses on chaos, complexity, and fractals in dynamical systems. It covers topics such as novel methods for solving population balance models; analysis of fractal structures and nonlinear partial differential equations; dynamics of disease therapy and cytokine interactions; stability and behavior of predator-prey and ecological systems; fluid dynamics and heat transfer in nanofluids; and numerical and analytical approaches to material and structural optimization.
