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Nota di contenuto	Chapter 1. Mathematical Study of Psoriasis Treatment by Interleukin 10 Through Impulsive Control Strategy -- Chapter 2. Multigrid Methods for the Simulations of Surfactant -- Chapter 3. Spreading on a Thin Liquid Film -- Chapter 4. Proximinality and Remotality in Abstract Spaces -- Chapter 5. Hopf bifurcation in a mathematical model of tuberculosis with delay -- Chapter 6. Numerical simulation of cable equation using Differential quadrature method -- Chapter 7. Numerical Simulation of Dusty Air Flow and Particle Deposition Inside Permeable Alveolar Duct -- Chapter 8. Size- Biased Poisson-Ishita Distribution And Its Applications To Thunderstorm Events -- Chapter 9. Resilience and dynamics of coral reefs impacted by chemically rich seaweeds and

unsustainable fishing stability of fractional volterra integrodiff eqns -- Chapter 10. On Fractional Partial Differential Equations of Diffusion Type with Integral Kernel -- Chapter 11. Mathematical Study on Human Cells Interaction Dynamics for HIV-TB Co-infection -- Chapter 12. Controllability of Nonlinear Fractional Damped Delay Systems with Multiple Delays in Control -- Chapter 13. Existence and stability results for stochastic fractional delay differential equations with Gaussian noise -- Chapter 14. A Graphical User Interface based Fingerprint Recognition -- Chapter 15. Bicomplex Matrix Semigroups -- Chapter 16. Mixed-Integer Optimal Control For Pdes: Relaxation Via Differential Inclusions And Applications To Gas Network Optimization -- Chapter 17. Schrödinger operators with a switching effect -- Chapter 18. Distribution Theory by Riemann Integrals -- Chapter 19. Wavelet Galerkin Methods for Higher OrderPartial Differential Equations -- Chapter 20. Critical growth elliptic problems with Choquard type non linearity -- Chapter 21. A New Model For Transient Flow In Gas Transportation Networks -- Chapter 22. Partial differential equations on metric graphs: A survey of -- Chapter 23. Wavelet-Neural-Fuzzy Coupled Modeling of National Stock Exchange (NSE) for Opening and Closing Stock -- Chapter 24. Topological analysis of a weighted human behavior model coupled on a streets and places network in the context of urban terrorist attack.

Sommario/riassunto

This book discusses a variety of topics related to industrial and applied mathematics, focusing on wavelet theory, sampling theorems, inverse problems and their applications, partial differential equations as a model of real-world problems, computational linguistics, mathematical models and methods for meteorology, earth systems, environmental and medical science, and the oil industry. It features papers presented at the International Conference in Conjunction with 14th Biennial Conference of ISIAM, held at Guru Nanak Dev University, Amritsar, India, on 2–4 February 2018. The conference has emerged as an influential forum, bringing together prominent academic scientists, experts from industry, and researchers. The topics discussed include Schrodinger operators, quantum kinetic equations and their application, extensions of fractional integral transforms, electrical impedance tomography, diffuse optical tomography, Galerkin method by using wavelets, a Cauchy problem associated with Korteweg–de Vries equation, and entropy solution for scalar conservation laws. This book motivates and inspires young researchers in the fields of industrial and applied mathematics.