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Nota di contenuto	Khalid Hattaf: Viral Immunology: Modeling and Analysis -- Divine Wanduku, C. Newman O. Jegede, and Broderick Oluyede: Modeling the Stochastic Dynamics of Influenza Epidemics with Vaccination Control, and the Maximum Likelihood Estimation of Model Parameters -- W.P.T. M. Wickramaarachchi and S.S. Nishantha Perera: A Two-Dimensional Dynamical System for Local Transmission of Dengue with Time Invariant Mosquito Density -- A.O. Egonmwan and Daniel Okuonghae: Mathematical Analysis of a Tuberculosis Model with Imperfect Vaccine -- A. Omame, Daniel Okuonghae, and Simeon Chioma Inyama: A Mathematical Study of a Model for HPV with Two High Risk Strains -- Ozlem Ozturk Mizrak, Cihan Mizrak, Ardak Kashkynbayev and Yang Kuang: Can Fractional Differentiation Improve Data Fitting Ability of a

Prostate Cancer Model under Intermittent Androgen Suppression Therapy? -- Cinzia Colapinto, Davide La Torre, Danilo Liuzzi, and Aymeric Vié: Towards the Realization of the Europe 2020 Agenda for Economic Growth in the European Union: An Analysis based on Goal Programming -- Flaviano Battelli, Michal Feckan: On the Poincaré–Andronov–Melnikov Method for Modelling of Grazing Periodic Solutions in Discontinuous Systems -- Kolade M. Owolabi and Hemen Dutta: Modeling and Analysis of Predation System with Nonlocal and Nonsingular Operator -- Devendra Kumar and Jagdev Singh: New Aspects of Fractional Epidemiological Model for Computer Viruses with Mittag–Leffler Law -- Kolade M. Owolabi: Numerical Simulation of Nonlinear Ecological Models with Nonlocal and Nonsingular Fractional Derivative.

Sommario/riassunto

This book discusses significant research findings in the field of mathematical modelling, with particular emphasis on important applied-sciences, health, and social issues. It includes topics such as model on viral immunology, stochastic models for the dynamics of influenza, model describing the transmission of dengue, model for human papillomavirus (HPV) infection, prostate cancer model, realization of economic growth by goal programming, modelling of grazing periodic solutions in discontinuous systems, modelling of predation system, fractional epidemiological model for computer viruses, and nonlinear ecological models. A unique addition in the proposed areas of research and education, this book is a valuable resource for graduate students, researchers and educators associated with the study of mathematical modelling of health, social and applied-sciences issues. Readers interested in applied mathematics should also find this book valuable. .