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Nota di contenuto	1.Radouane Yaa, M. A. Aziz-Alaoui, and Samira El Yacoubi: Modeling and Dynamics of Predator-prey Systems on a Circular Domain -- 2. Malay Banerjee, Moitri Sen, and Vitaly Volpert: Pattern formation in a prey-predator model with nonlocal interaction terms -- 3.J. M. Cushing: One dimensional maps as population and evolutionary dynamic models -- 4.Preeti Dubey, Balram Dubey, and Uma S. Dubey: An SIR model with nonlinear incidence rate and Holling type III treatment rate -- 5.Anju Goel and Sunita Gakkhar: Dynamic complexities in a pest control model with birth pulses -- 6.R. P. Gupta and Peeyush Chandra: Dynamical behavior of a modied Leslie-Gower prey-predator model with Michaelis-Menten type prey-harvesting -- 7.

Daniel A. Kortowski and Hal L. Smith: A special class of Lotka-Volterra models of bacteria-virus infection networks -- 8.Arnaud Ducrot and Hiroshi Matano: Plant diseases propagation in a striped periodic medium -- 9.Arti Mishra: A within-host model of dengue viral infection dynamics.-10.Anuraj Singh: Stabilization of prey predator model via feedback control -- 11.M. Indhumathy, S. Arumugam, Veeky Baths, and Tarkeshwar Singh: Graph Theoretic Concepts in the Study of Biological Networks -- 12.Tazid Ali and Nisha Gohain: Some algebraic aspects and evolution of genetic code -- 13.Kristiana Wijaya and Edy Tri Baskoro: On Ramsey (2K2,2H)-minimal graphs -- 14.Mohammad Belal and Nadeem Hasan: Solution of viscous burgers equation using a new flux based scheme -- 15.Snehal Shukla and Gunamani Deheri: Effect of slip velocity on the performance of a magnetic fluid based transversely rough porous narrow journal bearing -- 16.Pratik Suchde and A. S. Vasudeva Murthy: On the Wave Equations of Kirchhoff-Narasimha and Carrier -- 17.P. Muthu and M.Varunkumar: Mathematical model of ow in a channel with permeability - combined effect of straight and curved boundaries -- 18.Kamaljeet D. Bahuguna, and R. K. Shukla: Approximate controllability of nonlocal fractional integro-differential equations with finite delay -- 19.Rajeev Kumar, Anupma Bansal, and R. K. Gupta: Some solutions of generalized variable coefficients KdV equation by classical Lie Approach -- 20.M. Darabi and J. Zafarani: Well-posedness of parametric vector quasi-equilibrium problems -- 21.T. D. Narang and Sahil Gupta: Best simultaneous approximation in quotient spaces -- 22.Shamshad Husain, Huma Sahper and Sanjeev Gupta: Generalized cocoercive operator with an application -- 23. Akhlaq Iqbal and V. Samhita: Some integral inequalities for log-preinvex functions -- 24.Kanika Khatter, V. Ravichandran, and S. Sivaprasad Kumar: Estimates for initial coefficients of certain star like functions with respect to symmetric points -- 25.Yuqing Chen, Yeol Je Cho and Jong Kyu Kim: Note on convex functionals in the dual spaces of non reexive Banach spaces -- 26.M. A. Sofi: Nonlinear aspects of certain linear phenomena in Banach spaces -- 27.T. Som, A. Kundu, and B. S. Choudhury: Some results on fixed points of weak contractions for non compatible mappings via E.A.-like property.

Sommario/riassunto

The book contains recent developments and contemporary research in mathematical analysis and in its application to problems arising from the biological and physical sciences. The book is of interest to readers who wish to learn of new research in such topics as linear and nonlinear analysis, mathematical biology and ecology, dynamical systems, graph theory, variational analysis and inequalities, functional analysis, differential and difference equations, partial differential equations, approximation theory, and chaos. All papers were prepared by participants at the International Conference on Recent Advances in Mathematical Biology, Analysis and Applications (ICMBAA-2015) held during 4–6 June 2015 in Aligarh, India. A focal theme of the conference was the application of mathematics to the biological sciences and on current research in areas of theoretical mathematical analysis that can be used as sophisticated tools for the study of scientific problems. The conference provided researchers, academicians and engineers with a platform that encouraged them to exchange their innovative ideas in mathematical analysis and its applications as well as to form interdisciplinary collaborations. The content of the book is divided into three parts: Part I contains contributions from participants whose topics are related to nonlinear dynamics and its applications in biological sciences. Part II has contributions which concern topics on nonlinear analysis and its applications to a variety of problems in science, engineering and industry. Part III consists of contributions dealing with

