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Nota di contenuto	A. A. M. Daud, Mathematical Modeling and Stability Analysis of Population Dynamics -- T. K. Ang, H. M. Safuan, U. A. M. Roslan, and M. H. Mohd, Optimal Harvesting Regions of a Polluted Predator-prey Fishery System -- J. M. Tuwankotta, E. Harjanto and L. Owen, Dynamics and Bifurcations in a Dynamical System of a Predator-Prey Type with Nonmonotonic Response Function and Time-Periodic Variation -- J. Addawe, Z. Baoanan, and R. Addawe, Modeling and experimental data on the dynamics of predation of rice plants and weeds by Golden Apple Snail (<i>Pomacea canaliculata</i>) -- M. A. M. Abdelaziz, A. I. Ismail, F. A. Abdullah and M. H. Mohd, Analysis of a discrete-time fractional order SIR epidemic model for childhood diseases -- J. M. R. Macalalag, E. P. de Lara-Tuprio, and T. R. Y. Teng, A Tuberculosis Epidemic Model with Latent and Treatment Period Time Delays -- M. H. Mohd, Numerical Bifurcation and Stability Analyses of Partial Differential Equations with Applications to Competitive System in Ecology -- U. A. M. Roslan and M. T. M. Lutfi, Global Stability Index for an Attractor with Riddled Basin

in A Two-Species Competition System -- A. Nordin, M. S. M. Noorani, and S. C. Dzul-Kifii, Counting Closed Orbits in Discrete Dynamical Systems -- O. J. Omaiye, M. H. Mohd, Computational Dynamical Systems Using XPPAUT -- L. Owen and E. Harjanto, A basic manual for AUT0-07p in computing bifurcation diagrams of a predator-prey model -- J. A. Collera, Numerical Continuation and Bifurcation Analysis in a Harvested Predator-Prey Model with Time Delay using DDE-Biftool.

Sommario/riassunto

This book is the result of Southeast Asian Mathematical Society (SEAMS) School 2018 on Dynamical Systems and Bifurcation Analysis (DySBA). It addresses the latest developments in the field of dynamical systems, and highlights the importance of numerical continuation studies in tracking both stable and unstable steady states and bifurcation points to gain better understanding of the dynamics of the systems. The SEAMS School 2018 on DySBA was held in Penang from 6th to 13th August at the School of Mathematical Sciences, Universiti Sains Malaysia. The SEAMS Schools are part of series of intensive study programs that aim to provide opportunities for an advanced learning experience in mathematics via planned lectures, contributed talks, and hands-on workshop. This book will appeal to those postgraduates, lecturers and researchers working in the field of dynamical systems and their applications. Senior undergraduates in Mathematics will also find it useful.
