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	 Methods and Biological Models S. RJ. Jang; 11 Robust Discretizations versus Increase of the Time Step for Chaotic Systems C. Letellier and E. M. A. M. Mendes; 12 Contributions to the Theory of Non-Standard Finite Difference Methods and Applications to Singular Perturbation Problems J. MS. Luburna and K. C. Patidar 13 Frequency Accurate Finite Difference Methods A. L. Perkins P. A. Orlin and F. Zand14 Nonstandard Discretization Methods on Lotka-Volterra Differential Equations LI. W. Roeger
Sommario/riassunto	This volume provides a concise introduction to the methodology of nonstandard finite difference (NSFD) schemes construction and shows how they can be applied to the numerical integration of differential equations occurring in the natural, biomedical, and engineering sciences. These methods had their genesis in the work of Mickens in the 1990's and are now beginning to be widely studied and applied by other researchers. The importance of the book derives from its clear and direct explanation of NSFD in the introductory chapter along with a broad discussion of the future directions needed to adv