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Soggetti	Computational complexity System theory Statistical physics Complexity Complex Systems Applications of Nonlinear Dynamics and Chaos Theory
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Nota di bibliografia	Includes bibliographical references and index.
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Sommario/riassunto	This book for the first time examines periodic motions to chaos in time-delay systems, which exist extensively in engineering. For a long time, the stability of time-delay systems at equilibrium has been of great interest from the Lyapunov theory-based methods, where one cannot achieve the ideal results. Thus, time-delay discretization in time-delay systems was used for the stability of these systems. In this volume, Dr. Luo presents an accurate method based on the finite Fourier series to determine periodic motions in nonlinear time-delay systems. The stability and bifurcation of periodic motions are determined by the time-delayed system of coefficients in the Fourier series and the method for nonlinear time-delay systems is equivalent to the Laplace transformation method for linear time-delay systems. Facilitates discovery of analytical solutions of nonlinear time-delay systems; Illustrates bifurcation trees of periodic motions to chaos; Helps readers identify motion complexity and singularity; Explains

procedures for determining stability, bifurcation and chaos.

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