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Altri autori (Persone)	LeonidIgumnov
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Sommario/riassunto	This book highlights the presentation of methods for studying oscillations under external periodic influence and random changes in parameters in dynamic systems with nonlinearities that have discontinuities and kinks. The analysis of dynamic systems is based on effective approaches and algorithms of the method of point mappings of Poincaré surfaces, developed by the Nizhny Novgorod Scientific School of academician A.A. Andronov. Considerable attention is paid to the study of the general picture of the possible behavior of systems and

their use in solving various applied problems. Using specific examples, it is found that this research approach allows not only to advance in the study of known nonlinear features but also to discover new effects and applications. The presentation is illustrated by numerous specific examples of oscillatory strongly nonlinear systems with discontinuous nonlinearities or piecewise-continuous nonlinearities. A separate chapter is devoted to the development and use of the point mapping method for random changes in the parameters of dynamic systems, as well as in dynamic systems subject to external seismic loads. The book is intended for scientists and engineers who are engaged in research and practice activities related to the theory of nonlinear oscillations and its applications, as well as graduate students and senior undergraduate students in relevant majors.
