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Titolo	Two-dimensional Product-Cubic Systems, Vol. I : Constant and Linear Vector Fields // by Albert C. J. Luo
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Descrizione fisica	1 online resource (257 pages)
Disciplina	530.44
Soggetti	Plasma waves Multibody systems Vibration Mechanics, Applied Dynamics Nonlinear theories Mathematics - Data processing Waves, instabilities and nonlinear plasma dynamics Multibody Systems and Mechanical Vibrations Applied Dynamical Systems Engineering Mechanics Computational Science and Engineering
Lingua di pubblicazione	Inglese
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Nota di contenuto	Constant and Product-Cubic Systems -- Self-linear and Product-cubic systems -- Crossing-linear and Product-cubic systems.
Sommario/riassunto	This book, the fifth of 15 related monographs, presents systematically a theory of product-cubic nonlinear systems with constant and single-variable linear vector fields. The product-cubic vector field is a product of linear and quadratic different univariate functions. The hyperbolic and hyperbolic-secant flows with directrix flows in the cubic product system with a constant vector field are discussed first, and the cubic product systems with self-linear and crossing-linear vector fields are discussed. The inflection-source (sink) infinite equilibriums are

presented for the switching bifurcations of a connected hyperbolic flow and saddle with hyperbolic-secant flow and source (sink) for the connected the separated hyperbolic and hyperbolic-secant flows. The inflection-sink and source infinite-equilibriums with parabola-saddles are presented for the switching bifurcations of a separated hyperbolic flow and saddle with a hyperbolic-secant flow and center. Readers learn new concepts, theory, phenomena, and analysis techniques, such as Constant and product-cubic systems, Linear-univariate and product-cubic systems, Hyperbolic and hyperbolic-secant flows, Connected hyperbolic and hyperbolic-secant flows, Separated hyperbolic and hyperbolic-secant flows, Inflection-source (sink) Infinite-equilibriums and Infinite-equilibrium switching bifurcations. Develops a theory of product-cubic nonlinear systems with constant and single-variable linear vector fields; Presents inflection-source (sink) infinite-equilibriums for the switching of a connected hyperbolic flow; Presents inflection-sink (source) infinite-equilibriums for the switching of a paralleled hyperbolic flow. .

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