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Titolo	Two-dimensional Two-product Cubic Systems, Vol I : Different Product Structure Vector Fields // by Albert C. J. Luo
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Descrizione fisica	1 online resource (342 pages)
Disciplina	512.82
Soggetti	Dynamics Nonlinear theories Engineering mathematics Engineering - Data processing Multibody systems Vibration Mechanics, Applied Algebra, Universal Applied Dynamical Systems Mathematical and Computational Engineering Applications Multibody Systems and Mechanical Vibrations General Algebraic Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Chapter 1 Cubic Systems with Two different Product Structures -- Chapter 2 Parabola-saddle and Saddle-source (sink) Singularity -- Chapter 3 Inflection-source (sink) flows and parabola-saddles -- Chapter 4 Saddle-source (sink) with hyperbolic flow singularity -- Chapter 5 Equilibrium matrices with hyperbolic flows.
Sommario/riassunto	This book, the ninth of 15 related monographs, discusses a two product-cubic dynamical system possessing different product-cubic structures and the equilibrium and flow singularity and bifurcations for appearing and switching bifurcations. The appearing bifurcations herein are parabola-saddles, saddle-sources (sinks), hyperbolic-to-

hyperbolic-secant flows, and inflection-source (sink) flows. The switching bifurcations for saddle-source (sink) with hyperbolic-to-hyperbolic-secant flows and parabola-saddles with inflection-source (sink) flows are based on the parabola-source (sink), parabola-saddles, inflection-saddles infinite-equilibriums. The switching bifurcations for the network of the simple equilibriums with hyperbolic flows are parabola-saddles and inflection-source (sink) on the inflection-source and sink infinite-equilibriums. Readers will learn new concepts, theory, phenomena, and analysis techniques. · Two-different product-cubic systems · Hybrid networks of higher-order equilibriums and flows · Hybrid series of simple equilibriums and hyperbolic flows · Higher-singular equilibrium appearing bifurcations · Higher-order singular flow appearing bifurcations · Parabola-source (sink) infinite-equilibriums · Parabola-saddle infinite-equilibriums · Inflection-saddle infinite-equilibriums · Inflection-source (sink) infinite-equilibriums · Infinite-equilibrium switching bifurcations. Develops a theory of nonlinear dynamics and singularity of two-different product-cubic dynamical systems; Presents networks of singular and simple equilibriums and hyperbolic flows in such different structure product-cubic systems; Reveals network switching bifurcations through infinite-equilibriums of parabola-source (sink) and parabola-saddles.

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