1. Record Nr. UNINA990008195920403321

Autore Matthaeus, Antonius <1635-1710>

Titolo Antonii Matthaei a.f. a.n. Commentarius ad institutiones ss. principis

Iustiniani. In quo illustratur etiam ius hodiernum quo utimur

Pubbl/distr/stampa Trajecti ad Rhenum : apud Petrum Elzevirium, 1672

Descrizione fisica [18], 653, [13], 14 p. : ill. ; 4°

Locazione FGBC

Collocazione V Ob 54

Lingua di pubblicazione Latino

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Alle p. 8-9 e 20-21 illustraz. calcogr.

Record Nr. UNINA9910906198203321

Autore Luo Albert C. J.

Titolo Two-dimensional Product-cubic Systems, Vol.II: Product-quadratic

Vector Fields / / by Albert C. J. Luo

Pubbl/distr/stampa Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2024

ISBN 9783031571169

3031571169

Edizione [1st ed. 2024.]

Descrizione fisica 1 online resource (300 pages)

Collana Palgrave Studies in the History of Science and Technology Series

Disciplina 512.82

Soggetti Dynamics

Nonlinear theories

Engineering mathematics
Engineering - Data processing

Multibody systems

Vibration

Mechanics, Applied Stochastic analysis Mathematical analysis

Applied Dynamical Systems

Mathematical and Computational Engineering Applications

Multibody Systems and Mechanical Vibrations

Stochastic Analysis

Integral Transforms and Operational Calculus Dynamical Systems

Lingua di pubblicazione

Inglese

Formato

Materiale a stampa

Livello bibliografico

Monografia

Note generali

Includes index.

Nota di contenuto

Sommario/riassunto

Constant and Crossing-cubic Vector Fields -- Self-linear and Crossing-cubic Vector Fields -- Self-quadratic and Crossing-cubic Vector Fields.

This book, the sixth of 15 related monographs, discusses singularity and networks of equilibriums and 1-diemsnional flows in product quadratic and cubic systems. The author explains how, in the networks, equilibriums have source, sink and saddles with counter-clockwise and clockwise centers and positive and negative saddles, and the 1dimensional flows includes source and sink flows, parabola flows with hyperbolic and hyperbolic-secant flows. He further describes how the singular equilibriums are saddle-source (sink) and parabola-saddles for the appearing bifurcations, and the 1-dimensional singular flows are the hyperbolic-to-hyperbolic-secant flows and inflection source (sink) flows for 1-dimensional flow appearing bifurcations, and the switching bifurcations are based on the infinite-equilibriums, including inflection-source (sink), parabola-source (sink), up-down and down-up upper-saddle (lower-saddle), up-down (down-up) sink-to-source and source-to-sink, hyperbolic and hyperbolic-secant saddles. The diagonal-inflection upper-saddle and lower-saddle infiniteequilibriums are for the double switching bifurcations. The networks of hyperbolic flows with connected saddle, source and center are presented, and the networks of the hyperbolic flows with paralleled saddle and center are also illustrated. Readers will learn new concepts. theory, phenomena, and analysis techniques. Product-quadratic and product cubic systems Self-linear and crossing-quadratic product vector fields Self-quadratic and crossing-linear product vector fields Hybrid networks of equilibriums and 1-dimensional flows Up-down and down-up saddle infinite-equilibriums Up-down and down-up sink-to-source infinite-equilibriums Inflection-source (sink) Infiniteequilibriums Diagonal inflection saddle infinite-equilibriums Infiniteequilibrium switching bifurcations Develops singularity and networks of equilibriums and 1-diemsnional flows in product-quadratic and cubic systems; Provides dynamics of product-quadratic/ product-cubic systems through equilibrium network and first integral manifolds; Discovers new switching bifurcations through infinite-equilibriums of up-down upper-saddles (lower-saddles). .