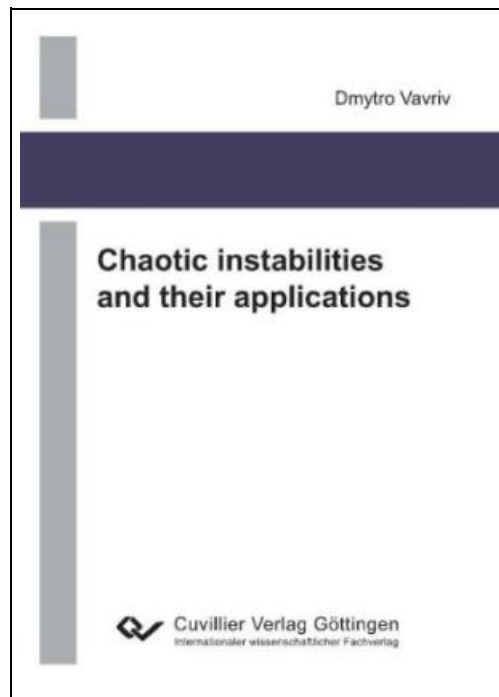


Chaotic instabilities and their applications



Filesize: 5.67 MB

Reviews

It is really an amazing pdf which i actually have possibly read. I really could comprehend almost everything using this published e pdf. Its been printed in an remarkably easy way and it is just soon after i finished reading through this book in which in fact changed me, modify the way in my opinion.
(Jena Jacobi)

CHAOTIC INSTABILITIES AND THEIR APPLICATIONS



Cuvillier Verlag Nov 2009, 2009. Taschenbuch. Condition: Neu. Neuware - The phenomenon of chaos, which is arising as noise-like oscillations in deterministic low-dimensional nonlinear system-s, should be treated from two different points of view. First, this effect can create a threat to stability of many practical systems, and it is needed to know conditions for the chaos to arise. Second, chaotic oscillations can be used for the development of various advanced devices, like noise oscillators, random number generators, noise radars, and so on. Both mentioned directions of the chaos study are addressed in this thesis. In this thesis, we present a first attempt to study chaotic instabilities which arise during the transition of pulses via nonlinear circuits. The mathematical model used is a generalized Duffing equation, which is an adequate model to describe stability in a number of electronic, microwave, and optical devices. The simplest physical oscillator which is described by such equation is a RLC-circuit with nonlinear capacitor, or a cavity with nonlinear element or media. Analytical, numerical, and experimental methods have been used in order to determine conditions for chaotic instabilities arising. For example, the application of secondary averaging has enabled us to find resonances which can give rise to chaotic instabilities, and to determine analytical conditions for chaos onset. These conditions have been compared with those obtained from numerical simulations and experimental investigations, and a good correspondence of the obtained results has been detected. The experiments have been performed with a nonlinear RLC circuit forced by a train of RF-pulses with rectangular envelope and with carrier frequency of about 30 MHz. The obtained results indicate that weakly nonlinear oscillators which are stable under harmonic forcing can lose their stability when a train of pulses is applied. The development of the chaotic instabilities takes place due to the...



[Read Chaotic instabilities and their applications Online](#)



[Download PDF Chaotic instabilities and their applications](#)

See Also



Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1624-1625)

Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now...

[Save](#) [Document](#)

»



Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1625)

Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English Brand New Book ***** Print on Demand *****.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now you...

[Save](#) [Document](#)

»



And You Know You Should Be Glad

HarperCollins Publishers Inc, United States, 2014. Paperback. Book Condition: New. Reprint. 201 x 132 mm. Language: English . Brand New Book ***** Print on Demand *****.A highly personal and moving true story of friend-ship and...

[Save](#) [Document](#)

»



Children s Educational Book: Junior Leonardo Da Vinci: An Introduction to the Art, Science and Inventions of This Great Genius. Age 7 8 9 10 Year-Olds. [Us English]

Createspace, United States, 2013. Paperback. Book Condition: New. 254 x 178 mm. Language: English . Brand New Book ***** Print on Demand *****.ABOUT SMART READS for Kids . Love Art, Love Learning Welcome. Designed to...

[Save](#) [Document](#)

»



Learn the Nautical Rules of the Road: An Expert Guide to the COLREGs for All Yachtsmen and Mariners

Fernhurst Books Limited. Paperback. Book Condition: new. BRAND NEW, Learn the Nautical Rules of the Road: An Expert Guide to the COLREGs for All Yachtsmen and Mariners, Paul B. Boissier, Expert information for yachtsmen and...

[Save](#) [Document](#)

»