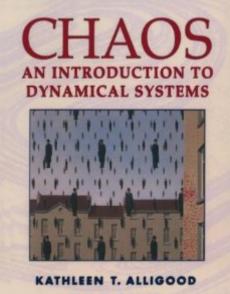
The book was found

# Chaos: An Introduction To Dynamical Systems (Textbooks In Mathematical Sciences)



TIM D. SAUER JAMES A. YORKE



## Synopsis

Developed and class-tested by a distinguished team of authors at two universities, this text is intended for courses in nonlinear dynamics in either mathematics or physics. The only prerequisites are calculus, differential equations, and linear algebra. Along with discussions of the major topics, including discrete dynamical systems, chaos, fractals, nonlinear differential equations and bifurcations, the text also includes Lab Visits -- short reports that illustrate relevant concepts from the physical, chemical and biological sciences. There are Computer Experiments throughout the text that present opportunities to explore dynamics through computer simulations, designed for use with any software package. And each chapter ends with a Challenge, guiding students through an advanced topic in the form of an extended exercise.

### **Book Information**

Series: Textbooks in Mathematical Sciences Paperback: 603 pages Publisher: Springer; Corrected edition (February 22, 2009) Language: English ISBN-10: 0387946772 ISBN-13: 978-0387946771 Product Dimensions: 7 x 1.4 x 10 inches Shipping Weight: 3 pounds (View shipping rates and policies) Average Customer Review: 4.4 out of 5 stars Â See all reviews (10 customer reviews) Best Sellers Rank: #675,809 in Books (See Top 100 in Books) #72 in Books > Science & Math > Mathematics > Pure Mathematics > Fractals #95 in Books > Science & Math > Physics > Chaos Theory #314 in Books > Science & Math > Mathematics > Applied > Differential Equations

### **Customer Reviews**

It was about the mid 1990's, still assimilating the big hype caused by the eventual and much-publicized proof by Andrew Wiles of Fermat's Last Theorem, when my curiosity (bolstered more by having seen a movie such as The Jurassic Park!) finally led me to taking a first college course on Chaos and Fractals at a California State school. At that time, the funny, surcastic, and somewhat sloppy foreign professor (who happened to be a country-mate of mine, for better or worse), had chosen the brand-new text "Fractals Everywhere" by Michael F. Barnsely for teaching our mid-size class consisting mainly of senior and first-year graduate students in math and sciences. I recall the discussion starting out by covering the basics about the metric spaces and

sequences, and I having a head-start over many others coming fresh on the heels of a heavy-duty general topology course just in the previous semester (so for example I could show off to others on the first instruction day what it meant for two metrics to be equivalent). Still, I admit the semester went by without many of us really absorbing the nuts and bolts of the subject, for example why exactly topological transitivity was needed for chaos in an Iterated Function System, and why exactly some known fractals had the given fractional dimensions (eventhough we could compute them). However the students were generally happy to have scratched the surface of this vast, engaging subject, and for the time being it seemed about enough exposure for most of us.

#### Download to continue reading...

Chaos: An Introduction to Dynamical Systems (Textbooks in Mathematical Sciences) Differential Equations, Dynamical Systems, and an Introduction to Chaos, Second Edition (Pure and Applied Mathematics) Elementary Cryptanalysis: A Mathematical Approach (Mathematical Association of America Textbooks) A Course in Mathematical Modeling (Mathematical Association of America Textbooks) Understanding Nonlinear Dynamics (Textbooks in Mathematical Sciences) Dynamical Systems: An Introduction (Universitext) Introduction to Dynamical Systems An Introduction to Chaotic Dynamical Systems, 2nd Edition Condensed Chaos: An Introduction to Chaos Magic A First Course In Chaotic Dynamical Systems: Theory And Experiment (Studies in Nonlinearity) The Beauty of Fractals: Images of Complex Dynamical Systems Dynamical Systems: Examples of Complex Behaviour (Universitext) Own the Wind: A Chaos Novel (The Chaos Series Book 1) Non-Euclidean Geometry (Mathematical Association of America Textbooks) Math Through the Ages: A Gentle History for Teachers and Others, Expanded Edition (Mathematical Association of America Textbooks) Set Theory: A First Course (Cambridge Mathematical Textbooks) Applied Mathematics for the Managerial, Life, and Social Sciences (Textbooks Available with Cengage Youbook) The Mathematical Olympiad Handbook: An Introduction to Problem Solving Based on the First 32 British Mathematical Olympiads 1965-1996 (Oxford Science Publications) Statistics for the Health Sciences: A Non-Mathematical Introduction Modeling and Control of Discrete-event Dynamic Systems: with Petri Nets and Other Tools (Advanced Textbooks in Control and Signal Processing)

<u>Dmca</u>