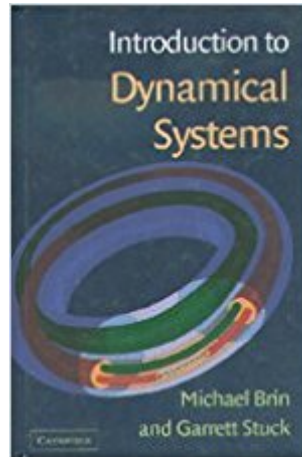




The book was found

Introduction To Dynamical Systems



Synopsis

This book provides a broad introduction to the subject of dynamical systems, suitable for a one or two-semester graduate course. In the first chapter, the authors introduce over a dozen examples, and then use these examples throughout the book to motivate and clarify the development of the theory. Topics include topological dynamics, symbolic dynamics, ergodic theory, hyperbolic dynamics, one-dimensional dynamics, complex dynamics, and measure-theoretic entropy. The authors top off the presentation with some beautiful and remarkable applications of dynamical systems to areas such as number theory, data storage, and internet search engines.

Book Information

Hardcover: 256 pages

Publisher: Cambridge University Press; 1 edition (October 14, 2002)

Language: English

ISBN-10: 0521808413

ISBN-13: 978-0521808415

Product Dimensions: 6 x 0.8 x 9 inches

Shipping Weight: 1.2 pounds (View shipping rates and policies)

Average Customer Review: 3.9 out of 5 stars 4 customer reviews

Best Sellers Rank: #793,430 in Books (See Top 100 in Books) #176 in Books > Science & Math > Mathematics > Geometry & Topology > Topology #458 in Books > Science & Math > Mathematics > Applied > Differential Equations #8807 in Books > Textbooks > Science & Mathematics > Mathematics

Customer Reviews

"... an ideal choice for a graduate course on dynamical systems ... warmly recommended ..." *Acta Scientiarum Mathematicarum*"... exceptionally well written ... You should consider adopting this wonderful text for your next graduate course on the pure mathematics of the modern theory of dynamical systems." *Carmen Chicone, SIAM Review*"... despite the breadth, one finds here major results rigorously treated and substantial applications. By itself, the clean, accessible exposition of the amazing Sharkovsky theorem would justify the acquisition of this book ... Highly recommended." *Choice*"While the pace is fast and the book is very concise, the organization and selection of topics has been considered carefully, and the writing is strong enough to support the speedy treatment ... It certainly does give a notion of the scope of dynamical systems in a way that few other single books do." *Bill Satzer, MAA Reviews*

This book provides a broad introduction to the subject of dynamical systems, suitable for a one or two-semester graduate course. In the first chapter, the authors introduce over a dozen examples, and then use these examples throughout the book to motivate and clarify the development of the theory. Topics include topological dynamics, symbolic dynamics, ergodic theory, hyperbolic dynamics, one-dimensional dynamics, complex dynamics, and measure-theoretic entropy. The authors top off the presentation with some beautiful and remarkable applications of dynamical systems to such areas as number theory, data storage, and internet search engines.

I can understand the disparaging reviews of this book, but this book is a graduate textbook requiring significant mathematical maturity. Consequently, the author, in my opinion, is right to expect students of higher maths to fill in the blanks and mentally construct their own example. This book is my favorite as a comprehensive introduction to dynamical systems since it supplies enough details to help with pursuing research on the subject.

The author is a very good mathematician (and a grandfather of Google) so I was expecting a short and lucid introduction to dynamical system. Imagine my sadness when I found the book barely comprehensible. Apparently, the author learned his writing skills in Russian in the 60s, where paper was scarce, and any sort of explanation was viewed a waste thereof. If you actually want to understand dynamics, Katok/Hasselblatt's Introduction to the Modern Theory of Dynamical Systems (Encyclopedia of Mathematics and its Applications) is vastly superior.

So far I have found this book to include many of the classic and meaningful examples of Dynamical Systems, and has appropriate exercise for a graduate level course. So, I'll give it a good rating based solely on its use for researchers and advanced math students. However, it is very terse. Do not pick this up expecting a lot of discussion about the topics. Most of the time it is basically a list of definitions and theorem/proof's with exercises. Because of that it is great for use in a class, but might be a little difficult for independent learning. It could use a few more pictures, too.

This book was mostly our lecture notes for a year long course at University of Maryland. We helped find typos in it and I have read most of this material very carefully. It is exceedingly concise. It is a good introduction if you have access to classes themselves; otherwise, it is a rather quick way for an advanced reader to learn about some major topics in Dynamical systems. If you have time,

everything is there and the book is readable. overall, a good book in your collection of dynamical systems but perhaps not the very first book on the subject. I would say it's good for a third year graduate student for self-study.

[Download to continue reading...](#)

[Differential Equations, Dynamical Systems, and an Introduction to Chaos [DIFFERENTIAL EQUATIONS, DYNAMICAL SYSTEMS, AND AN INTRODUCTION TO CHAOS BY Hirsch, Morris W. (Author) Mar-26-2012] By Hirsch, Morris W. (Author) [2012] [Paperback] Introduction to Differential Equations with Dynamical Systems Differential Equations, Dynamical Systems, and an Introduction to Chaos, Third Edition Dynamical Systems: An Introduction (Universitext) Introduction to Dynamical Systems Chaos: An Introduction to Dynamical Systems (Textbooks in Mathematical Sciences) Differential Equations, Dynamical Systems, and an Introduction to Chaos Differential Equations, Dynamical Systems, and an Introduction to Chaos, Second Edition (Pure and Applied Mathematics) Differential Equations and Dynamical Systems (Texts in Applied Mathematics) Ordinary Differential Equations: From Calculus to Dynamical Systems (Maa Textbooks) A First Course In Chaotic Dynamical Systems: Theory And Experiment (Studies in Nonlinearity) Dynamical Systems (Dover Books on Mathematics) A First Course in Discrete Dynamical Systems (Universitext) Fractal Geometry and Dynamical Systems in Pure and Applied Mathematics I: Fractals in Pure Mathematics (Contemporary Mathematics) Lectures on Fractal Geometry and Dynamical Systems (Student Mathematical Library) Extremes and Recurrence in Dynamical Systems (Pure and Applied Mathematics: A Wiley Series of Texts, Monographs and Tracts) In the Wake of Chaos: Unpredictable Order in Dynamical Systems (Science and Its Conceptual Foundations series) Chaos in Dynamical Systems Dynamical Systems: A Differential Geometric Approach to Symmetry and Reduction Mathematical Theory of Nonequilibrium Steady States: On the Frontier of Probability and Dynamical Systems (Lecture Notes in Mathematics)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)