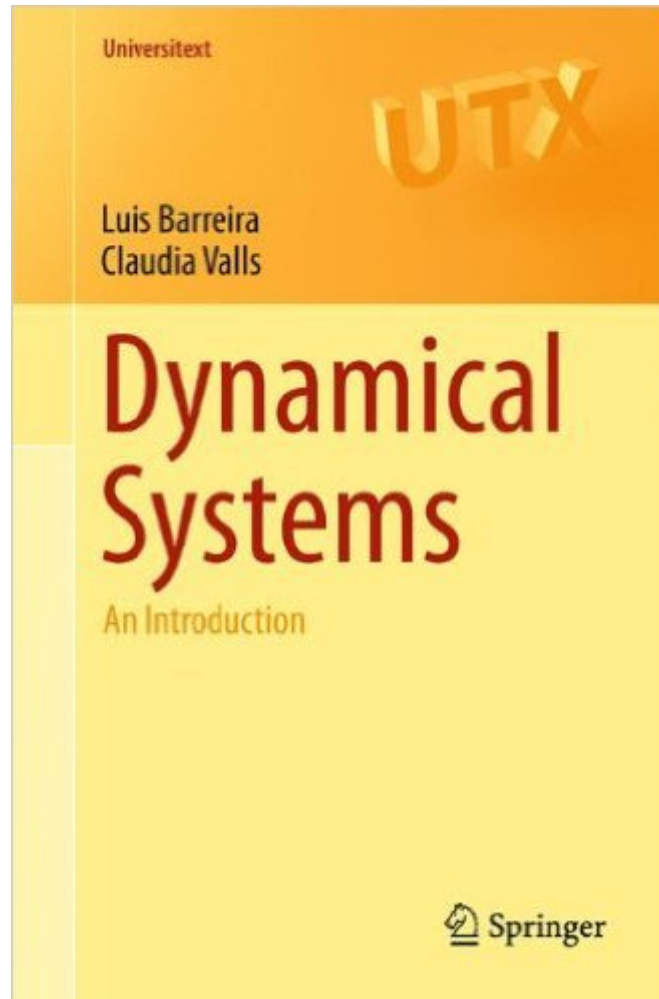


The book was found

Dynamical Systems: An Introduction (Universitext)



Synopsis

The theory of dynamical systems is a broad and active research subject with connections to most parts of mathematics. *Dynamical Systems: An Introduction* undertakes the difficult task to provide a self-contained and compact introduction. Topics covered include topological, low-dimensional, hyperbolic and symbolic dynamics, as well as a brief introduction to ergodic theory. In particular, the authors consider topological recurrence, topological entropy, homeomorphisms and diffeomorphisms of the circle, Sharkovskii's ordering, the Poincaré-Bendixson theory, and the construction of stable manifolds, as well as an introduction to geodesic flows and the study of hyperbolicity (the latter is often absent in a first introduction). Moreover, the authors introduce the basics of symbolic dynamics, the construction of symbolic codings, invariant measures, Poincaré's recurrence theorem and Birkhoff's ergodic theorem. The exposition is mathematically rigorous, concise and direct: all statements (except for some results from other areas) are proven. At the same time, the text illustrates the theory with many examples and 140 exercises of variable levels of difficulty. The only prerequisites are a background in linear algebra, analysis and elementary topology. This is a textbook primarily designed for a one-semester or two-semester course at the advanced undergraduate or beginning graduate levels. It can also be used for self-study and as a starting point for more advanced topics.

Book Information

Series: Universitext

Paperback: 209 pages

Publisher: Springer; 2013 edition (December 14, 2012)

Language: English

ISBN-10: 1447148347

ISBN-13: 978-1447148340

Product Dimensions: 6.1 x 0.5 x 9.2 inches

Shipping Weight: 14.4 ounces (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars [See all reviews](#) (1 customer review)

Best Sellers Rank: #641,021 in Books (See Top 100 in Books) #25 in [Books > Science & Math > Mathematics > Geometry & Topology > Non-Euclidean Geometries](#) #297 in [Books > Science & Math > Mathematics > Applied > Differential Equations](#) #374 in [Books > Textbooks > Science & Mathematics > Mathematics > Geometry](#)

Customer Reviews

Excellent book and excellent service!

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

Dynamical Systems: An Introduction (Universitext) Dynamical Systems: Examples of Complex Behaviour (Universitext) Introduction to Dynamical Systems Chaos: An Introduction to Dynamical Systems (Textbooks in Mathematical Sciences) An Introduction to Chaotic Dynamical Systems, 2nd Edition Differential Equations, Dynamical Systems, and an Introduction to Chaos, Second Edition (Pure and Applied Mathematics) A First Course In Chaotic Dynamical Systems: Theory And Experiment (Studies in Nonlinearity) The Beauty of Fractals: Images of Complex Dynamical Systems Introduction to the Theory of (Non-Symmetric) Dirichlet Forms (Universitext) An Introduction to Manifolds (Universitext) Classical Tessellations and Three-Manifolds (Universitext) Geodesic and Horocyclic Trajectories (Universitext) Motivic Homotopy Theory: Lectures at a Summer School in Nordfjordeid, Norway, August 2002 (Universitext) Lectures on Hyperbolic Geometry (Universitext) Matrix Theory: Basic Results and Techniques (Universitext) Groups and Symmetries: From Finite Groups to Lie Groups (Universitext) Lie Groups: An Approach through Invariants and Representations (Universitext) Introduction to Logistics Systems Planning and Control (Wiley Interscience Series in Systems and Optimization) Introduction to Embedded Systems: Using ANSI C and the Arduino Development Environment (Synthesis Lectures on Digital Circuits and Systems) The Art of Systems Architecting, Third Edition (Systems Engineering)

[Dmca](#)