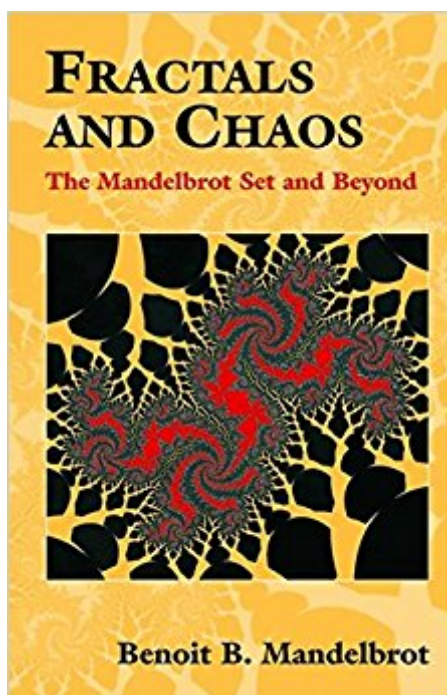The book was found

Fractals And Chaos: The Mandelbrot Set And Beyond

Synopsis

Just 23 years ago Benoit Mandelbrot published his famous picture of the Mandelbrot set, but that picture has changed our view of the mathematical and physical universe. In this text, Mandelbrot offers 25 papers from the past 25 years, many related to the famous inkblot figure. Of historical interest are some early images of this fractal object produced with a crude dot-matrix printer. The text includes some items not previously published.

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Customer Reviews

From the reviews: "It is only twenty-three years since Benoit Mandelbrot published his famous picture of what is now called the Mandelbrot Set. The graphics were state of the art, though now they may seem primitive. But how that picture has changed our views of the mathematical and physical universe! Fractals, a term coined by Mandelbrot, are now so ubiquitous in the scientific conscience that it is difficult to remember the psychological shock of their arrival. What we see in this book is a glimpse of how Mandelbrot helped change our way of looking at the world. It is not just a book about a particular class of problems, but contains a view on how to approach the mathematical and physical universe. This view is certain not to fade, but to be part of the working philosophy of the next mathematical revolution, wherever it may take us. So read the book, look at the beautiful pictures that continue to fascinate and amaze, and enjoy! "Ã Â Ã Â Ã Â Ã Â Ã Â --From the foreword by Peter W Jones, Yale University Praise for Mandelbrot, Benoit B, Fractals and Chaos American Scientist "Manderlbrot brings together 25 papers from the past 25 years. Many

of them are related in one way or another to the famous inkblot figure to which MandelbrotÃ¢â ¬â„¢s name is now firmly affixed. Of historical interest are some early images of this fractal object, produced with a crude dot-matrix printer. A few items in the collection have not been previously published, and all are accompanied by feisty commentary." "This is the fourth volume of MandelbrotÃ¢â ¬â„¢s Selecta, comprising edited reprints of the authorÃ¢â ¬â„¢s papers. Ã¢â ¬Â¦ One chapter has been written specifically to help the non-expert appreciate the rest of the book. Ã¢â ¬Â¦ accessible to a wide readership. It provides a fascinating insight into the authorÃ¢â ¬â„¢s journey of seeing and discovering as the early pictures of the Mandelbrot set started to reveal a whole new world. It gives a feeling for his philosophy and approach of experimental mathematics Ã¢â ¬Â¦ ." (Kenneth Falconer, NATURE, Vol. 430, July1, 2004) "The well-illustrated book combines hard-to-find early papers by the author with additional chapters that describe the historical background and context. Key topics are quadratic dynamics and its Julia and Mandelbrot sets, nonquadratic dynamics, Kleinian limit sets, and the Minkowski measure." (Zentralblatt fÃƒÂ r Didaktik der Mathematik, Juli, 2004) "MandelbrotÃ¢â ¬â„¢s book is a scientific, philosophic and pictorial treatise at the same time and it is one of the rare specimens of serious mathematics books that can be read and re-read at many different levels. Ã¢â ¬Â¦ The style is what one would call Ã¢â ¬Ëœtruly MandelbrotianÃ¢â ¬â„¢, a mixture of hard science, often with a personal touch Ã¢â ¬Â¦ . a book that will be as important for the scientific community Ã¢â ¬Â¦ as it will be appealing to a general informed audience." (RenÃƒÂ© L. Schilling, The Mathematical Gazette, March, 2005) "Benoit Mandelbrot has produced a comprehensive, well-presented review of essential topics Ã¢â ¬Â¦ . All chapters are assembled in a way that the overall mix becomes a very well integrated source of know-how Ã¢â ¬Â¦ . The author made a serious and effective effort to realize a book that contains more than history, more than mathematics Ã¢â ¬Â¦ . it is an excellent book also for supporting courses at University, PhD and Post doc level. Moreover, it is indispensable for scientists Ã¢â ¬Â¦ ." (Biomedical Engineering OnLine, May, 2005) "Chaotic and fractal work has become popular among the mathematicians. Ã¢â ¬Â¦ The introductions to reprinted classical texts Ã¢â ¬Â¦ . illustrate how a theory emerges, how answers create new questions, and how progress is made. The reader will be grateful not only for these historical explanatory remarks Ã¢â ¬Â¦ . Collectively they give a compelling account of how a new branch of mathematics was created by the author. This delightful book makes good reading." (Helmut Kirchner, Pure and Applied Geophysics, Vol. 162, 2005) "Benoit Mandelbrot, an award winning, academic nomad Ã¢â ¬Â¦ is credited with changing the way scientists in many fields, look at the world. Ã¢â ¬Â¦ founded the influential fields of fractal and multifractal geometry. Ã¢â ¬Â¦ The book is well

populated with black and white graphical computer outputs of fractals and conceptual illustrations. Never before published illustrations Ã¢â ¬Â| are included. Ã¢â ¬Â| Recommended for all university science libraries." (James A. Buczynski, E-Streams, Vol. 7 (10), 2004) "This book is a collection of early papers by Benoit B. Mandelbrot, combined with additional papers Ã¢â ¬Â| . The reader surely will appreciate the number of pictures and illustrations Ã¢â ¬Â| . The book will be valued by both mathematicians and physicists who are interested in the field. It is written in a clear and straightforward way whilst pointing out lots of applications. A non-mathematician will appreciate the minimal number of formulas Ã¢â ¬Â| . the mathematicianÃ¢â ¬â„¢s eye will be pleased by the exactness of the presentation." (EMS Newsletter, December, 2005) "This book contains early papers by Benoit Mandelbrot, as well as additional chapters Ã¢â ¬Â| . the mathematical papers are extremely interesting, and a collection Ã¢â ¬Â| is really a treat, but what I found even more fascinating (and more entertaining to read, even for non-specialists) are the papers dealing with background, historical notes, bibliographical notes, commentaries etc. Ã¢â ¬Â| this is a wonderful book for a large group of readers Ã¢â ¬Â| . Reading this book was a pleasure." (Mihaela Poplicher, MathDL, January, 2005) "Benoit Mandelbrot was 80 last year; and it is 25 years since he first saw the ubiquitious set that bears his name. Ã¢â ¬Â| This book is a selection of articles from the 1980s and early 1990s, together with previously unpublished material from the same period Ã¢â ¬Â| . The informal mix of mathematics and commentary in MandelbrotÃ¢â ¬â„¢s book provides a fascinating insight into his motivation and method." (Shaun Bullett, Times Higher Education Supplement, August, 2005) "A scientist becomes rarely the historian of his own work, however here it is the case. Ã¢â ¬Â| Mandelbrot comments upon each of the selected articles Ã¢â ¬Â| . The reader will be grateful not only for these historical explanatory remarks, but also for pieces adapted or written by Mandelbrot especially for this book. Collectively they give a compelling account of how a new branch of mathematics was created by the author. This delightful book makes good reading." (Helmut Kirchner, Pure and Applied Geophysics, Vol. 162, 2005)

Ã Â "It is only twenty-three years since Benoit Mandelbrot published his famous picture of what is now called the Mandelbrot Set. The graphics were state of the art, though now they may seem primitive. But how that picture has changed our views of the mathematical and physical universe! Fractals, a term coined by Mandelbrot, are now so ubiquitous in the scientific conscience that it is difficult to remember the psychological shock of their arrival. What we see in this book is a glimpse of how Mandelbrot helped change our way of looking at the world. It is not just a book about a particular class of problems, but contains a view on how to approach the mathematical and physical

universe. This view is certain not to fade, but to be part of the working philosophy of the next mathematical revolution, wherever it may take us. So read the book, look at the beautiful pictures that continue to fascinate and amaze, and enjoy! "Ã Â From the foreword by Peter W Jones, Yale University   This heavily illustrated book combines hard-to-find early papers by the author with additional chapters that describe the historical background and context. Key topics are quadratic dynamics and its Julia and Mandelbrot sets, nonquadratic dynamics, Kleinian limit sets, and the Minkowski measure. Benoit B Mandelbrot is Sterling Professor of Mathematical Sciences at Yale University and IBM Fellow Emeritus (Physics) at the IBM T J Watson Research Center. He was awarded the Wolf Prize for Physics in 1993 and the Japan Prize for Science and Technology in 2003.

This is a great read by the great Benoit B. Mandelbrot I've only begun to enjoy what I suspect will be a lifetime of enjoyment.

Received product much sooner than expected; quality was great and nothing broken. Was exactly what I expected with no problems. Was a gift and arrived on time.

Order In Chaos: How The Mandelbrot Set & Fractal Geometry Help Unlock the Secrets of The Entire Universe! (Mandelbrot Set, Fractal Geometry) Fractals and Chaos: The Mandelbrot Set and Beyond Fractals, Wavelets, and their Applications: Contributions from the International Conference and Workshop on Fractals and Wavelets (Springer Proceedings in Mathematics & Statistics) Fractals in Physics: Proceedings of the Sixth Trieste International Symposium on Fractals in Physics, Ictp, Trieste, Italy, July 9-12, 1985 Chaos and Fractals: New Frontiers of Science Chaos and Fractals: An Elementary Introduction Encounters with Chaos and Fractals, Second Edition Playing with Chaos: Programming Fractals and Strange Attractors in JavaScript The Computational Beauty of Nature: Computer Explorations of Fractals, Chaos, Complex Systems, and Adaptation Fractals: The Patterns of Chaos: Discovering a New Aesthetic of Art, Science, and Nature (A Touchstone Book) The Computational Beauty of Nature: Computer Explorations of Fractals, Chaos, Complex Systems, and Adaptation (MIT Press) Fractals, Chaos, Power Laws: Minutes from an Infinite Paradise (Dover Books on Physics) Fractals, Chaos, Power Laws: Minutes from an Infinite Paradise The Fractal Geometry of Nature by Benoit B. Mandelbrot (18-Nov-1982) Hardcover [Differential Equations, Dynamical Systems, and an Introduction to Chaos [DIFFERENTIAL EQUATIONS, DYNAMICAL SYSTEMS, AND AN INTRODUCTION TO CHAOS BY Hirsch, Morris

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