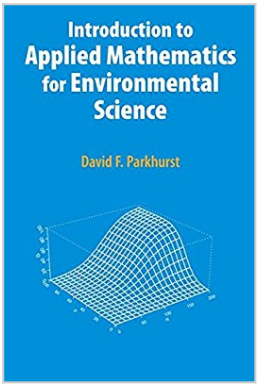

Introduction to Applied Mathematics for Environmental Science

By David F. Parkhurst

Introduction to Applied Mathematics for Environmental Science By David F. Parkhurst

This book teaches mathematical structures and how they can be applied in environmental science. Each chapter presents story problems with an emphasis on derivation. For each of these, the discussion follows the pattern of first presenting an example of a type of structure as applied to environmental science. The definition of the structure is presented, followed by additional examples using MATLAB, and analytic methods of solving and learning from the structure.

Introduction to Applied Mathematics for Environmental Science

By David F. Parkhurst

Introduction to Applied Mathematics for Environmental Science By David F. Parkhurst

This book teaches mathematical structures and how they can be applied in environmental science. Each chapter presents story problems with an emphasis on derivation. For each of these, the discussion follows the pattern of first presenting an example of a type of structure as applied to environmental science. The definition of the structure is presented, followed by additional examples using MATLAB, and analytic methods of solving and learning from the structure.

Introduction to Applied Mathematics for Environmental Science By David F. Parkhurst Bibliography

- Sales Rank: #1600165 in Books
- Published on: 2006-06-28
- Original language: English
- Number of items: 1
- Dimensions: 9.21" h x .75" w x 6.14" l, 1.40 pounds
- Binding: Hardcover
- 317 pages

Editorial Review

Review

From the reviews:

"It … explains how basic tools of mathematical analysis can be efficiently used to study problems arising in environmental sciences. … The text shall attract non-mathematical audience by clarity of exposition which concentrates mostly on ideas and techniques … . Specifically tailored to the needs of undergraduate and graduate students in environmental sciences, this unique and skillfully written book shall help them to understand and master fundamental mathematical concepts and techniques used in the analysis of applied problems." (Yuri V. Rogovchenko, Zentralblatt MATH, Vol. 1145, 2008)

From the Back Cover

Introduction to Mathematics for Environmental Science evolved from the author's 30 years' experience teaching mathematics to graduate and advanced undergraduate students in the environmental sciences. Its basic purpose is to teach various types of mathematical structures and how they can be applied in a broad range of environmental science subfields. Derivatives and integrals, ordinary and partial differential equations, and linear and non-linear algebraic equations are the basic kinds of structures (types of mathematical models) discussed.

For each mathematical topic, the book emphasizes derivation of mathematical models from "story problems" first, and solution of equations second. It suggests finding analytic solutions when possible, but discusses methods for finding numerical solutions to problems that can't be solved analytically. For most topics, examples of using Matlab software to solve and explore the structures are also included.

This text assumes that its readers will already have been introduced to the basic ideas of differential and integral calculus, so it is not an introduction to calculus. It does, however, include three early chapters to review basic algebra, derivatives, and integrals.

Professor Parkhurst earned his B.S. degree in applied mathematics from the College of Engineering, University of Colorado, Boulder, in 1965, and his Ph.D. in Botany (Plant Ecology) from the University of Wisconsin, Madison, in 1970. He then worked three years at the CSIRO Division of Atmospheric Science in Aspendale, Victoria, Australia, before joining the Environmental Science faculty of the School of Public and Environmental Affairs, Indiana University, Bloomington, in 1973. He held a joint appointment in the Biology Department there as well. He retired from that position in December, 2005, after 32 years. His research areas include mathematical modelling of adaptations of plant leaves to environment, environmental risk analysis, and applications of statistics in environmental and public health areas.

Users Review

From reader reviews:

Tony Paulson:

Have you spare time for the day? What do you do when you have more or little spare time? Yeah, you can choose the suitable activity with regard to spend your time. Any person spent their own spare time to take a wander, shopping, or went to the particular Mall. How about open or even read a book titled Introduction to Applied Mathematics for Environmental Science? Maybe it is to be best activity for you. You know beside you can spend your time with your favorite's book, you can smarter than before. Do you agree with the opinion or you have other opinion?

Stephanie Gilley:

This book untitled Introduction to Applied Mathematics for Environmental Science to be one of several books that best seller in this year, honestly, that is because when you read this guide you can get a lot of benefit in it. You will easily to buy this kind of book in the book store or you can order it by means of online. The publisher on this book sells the e-book too. It makes you quicker to read this book, as you can read this book in your Smart phone. So there is no reason to your account to past this publication from your list.

Crystal Parrish:

Don't be worry for anyone who is afraid that this book may filled the space in your house, you can have it in e-book method, more simple and reachable. This specific Introduction to Applied Mathematics for Environmental Science can give you a lot of close friends because by you considering this one book you have matter that they don't and make anyone more like an interesting person. This kind of book can be one of a step for you to get success. This publication offer you information that possibly your friend doesn't realize, by knowing more than various other make you to be great folks. So , why hesitate? We should have Introduction to Applied Mathematics for Environmental Science.

Brian Rutt:

Some individuals said that they feel fed up when they reading a book. They are directly felt that when they get a half regions of the book. You can choose typically the book Introduction to Applied Mathematics for Environmental Science to make your reading is interesting. Your current skill of reading skill is developing when you similar to reading. Try to choose straightforward book to make you enjoy to learn it and mingle the impression about book and examining especially. It is to be very first opinion for you to like to start a book and examine it. Beside that the book Introduction to Applied Mathematics for Environmental Science can to be your new friend when you're really feel alone and confuse using what must you're doing of this time.

Read Introduction to Applied Mathematics for Environmental Science By David F. Parkhurst for online ebook

Introduction to Applied Mathematics for Environmental Science By David F. Parkhurst Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Introduction to Applied Mathematics for Environmental Science By David F. Parkhurst books to read online.

Online Introduction to Applied Mathematics for Environmental Science By David F. Parkhurst ebook PDF download

Introduction to Applied Mathematics for Environmental Science By David F. Parkhurst Doc

Introduction to Applied Mathematics for Environmental Science By David F. Parkhurst Mobipocket

Introduction to Applied Mathematics for Environmental Science By David F. Parkhurst EPub

3JUS1N54BRY: Introduction to Applied Mathematics for Environmental Science By David F. Parkhurst