Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics)

By Anders Malthe-Sørenssen

Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen

This book – specifically developed as a novel textbook on elementary classical mechanics – shows how analytical and numerical methods can be seamlessly integrated to solve physics problems. This approach allows students to solve more advanced and applied problems at an earlier stage and equips them to deal with real-world examples well beyond the typical special cases treated in standard textbooks.

Another advantage of this approach is that students are brought closer to the way physics is actually discovered and applied, as they are introduced right from the start to a more exploratory way of understanding phenomena and of developing their physical concepts.

While not a requirement, it is advantageous for the reader to have some prior knowledge of scientific programming with a scripting-type language. This edition of the book uses Python, and a chapter devoted to the basics of scientific programming with Python is included. A parallel edition using Matlab instead of Python is also available.

Last but not least, each chapter is accompanied by an extensive set of course-tested exercises and solutions.

Download Elementary Mechanics Using Python: A Modern Course ...pdf

Read Online Elementary Mechanics Using Python: A Modern Cour ...pdf

Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics)

By Anders Malthe-Sørenssen

Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen

This book – specifically developed as a novel textbook on elementary classical mechanics – shows how analytical and numerical methods can be seamlessly integrated to solve physics problems. This approach allows students to solve more advanced and applied problems at an earlier stage and equips them to deal with real-world examples well beyond the typical special cases treated in standard textbooks.

Another advantage of this approach is that students are brought closer to the way physics is actually discovered and applied, as they are introduced right from the start to a more exploratory way of understanding phenomena and of developing their physical concepts.

While not a requirement, it is advantageous for the reader to have some prior knowledge of scientific programming with a scripting-type language. This edition of the book uses Python, and a chapter devoted to the basics of scientific programming with Python is included. A parallel edition using Matlab instead of Python is also available.

Last but not least, each chapter is accompanied by an extensive set of course-tested exercises and solutions.

Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen Bibliography

- Rank: #698166 in Books
- Published on: 2015-05-29
- Original language: English
- Number of items: 1
- Dimensions: 9.21" h x 1.31" w x 6.14" l, 2.13 pounds
- Binding: Hardcover
- 590 pages

Download and Read Free Online Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen

Editorial Review

From the Back Cover

This book – specifically developed as a novel textbook on elementary classical mechanics – shows how analytical and numerical methods can be seamlessly integrated to solve physics problems. This approach allows students to solve more advanced and applied problems at an earlier stage and equips them to deal with real-world examples well beyond the typical special cases treated in standard textbooks.

Another advantage of this approach is that students are brought closer to the way physics is actually discovered and applied, as they are introduced right from the start to a more exploratory way of understanding phenomena and of developing their physical concepts.

While not a requirement, it is advantageous for the reader to have some prior knowledge of scientific programming with a scripting-type language. This edition of the book uses Python, and a chapter devoted to the basics of scientific programming with Python is included. A parallel edition using Matlab instead of Python is also available.

Last but not least, each chapter is accompanied by an extensive set of course-tested exercises and solutions.

About the Author

Professor Anders Malthe-Sørenssen is a professor of physics at the University of Oslo, where his research interests are focused on the physics of geological processes. His current teaching activity focuses on revitalizing the teaching of undergraduate science courses by seamless integration of computational methods in order to give students an early contact with research and industrially relevant problems.

Users Review

From reader reviews:

Harriet Dupree:

Throughout other case, little men and women like to read book Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics). You can choose the best book if you want reading a book. As long as we know about how is important some sort of book Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics). You can add information and of course you can around the world by way of a book. Absolutely right, simply because from book you can realize everything! From your country right up until foreign or abroad you will be known. About simple issue until wonderful thing you may know that. In this era, you can open a book or even searching by internet gadget. It is called e-book. You may use it when you feel uninterested to go to the library. Let's read.

Quentin Taylor:

This Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) is great publication for you because the content that is certainly full of information for you who all always deal with world and have to make decision every minute. That book reveal it info accurately using great arrange word or we can point out no rambling sentences in it. So if you are read it hurriedly you can have whole info in it. Doesn't mean it only gives you straight forward sentences but difficult core information with attractive delivering sentences. Having Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) in your hand like obtaining the world in your arm, info in it is not ridiculous just one. We can say that no book that offer you world with ten or fifteen moment right but this publication already do that. So , it is good reading book. Heya Mr. and Mrs. stressful do you still doubt in which?

Robert Vargas:

That reserve can make you to feel relax. This specific book Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) was bright colored and of course has pictures on there. As we know that book Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) has many kinds or type. Start from kids until young adults. For example Naruto or Investigator Conan you can read and feel that you are the character on there. Therefore not at all of book tend to be make you bored, any it offers up you feel happy, fun and relax. Try to choose the best book to suit your needs and try to like reading that.

Walter Pyle:

A number of people said that they feel bored when they reading a book. They are directly felt this when they get a half elements of the book. You can choose the actual book Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) to make your own personal reading is interesting. Your personal skill of reading skill is developing when you like reading. Try to choose very simple book to make you enjoy to read it and mingle the idea about book and reading through especially. It is to be 1st opinion for you to like to wide open a book and examine it. Beside that the publication Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) can to be your brand new friend when you're experience alone and confuse using what must you're doing of that time.

Download and Read Online Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen #EXHNT9OJ8P2

Read Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen for online ebook

Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen 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 Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen books to read online.

Online Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen ebook PDF download

Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen Doc

Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen Mobipocket

Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen EPub

EXHNT9OJ8P2: Elementary Mechanics Using Python: A Modern Course Combining Analytical and Numerical Techniques (Undergraduate Lecture Notes in Physics) By Anders Malthe-Sørenssen