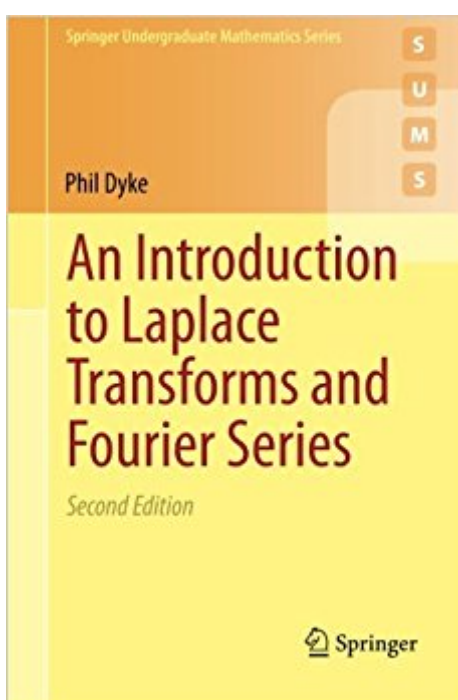The book was found

An Introduction To Laplace Transforms And Fourier Series (Springer Undergraduate Mathematics Series)

Synopsis

In this book, there is a strong emphasis on application with the necessary mathematical grounding. There are plenty of worked examples with all solutions provided. This enlarged new edition includes generalised Fourier series and a completely new chapter on wavelets.Only knowledge of elementary trigonometry and calculus are required as prerequisites. An Introduction to Laplace Transforms and Fourier Series will be useful for second and third year undergraduate students in engineering, physics or mathematics, as well as for graduates in any discipline such as financial mathematics, econometrics and biological modelling requiring techniques for solving initial value problems.

Book Information

Series: Springer Undergraduate Mathematics Series

Paperback: 318 pages

Publisher: Springer; 2nd ed. 2014 edition (March 25, 2014)

Language: English

ISBN-10: 144716394X

ISBN-13: 978-1447163947

Product Dimensions: 6.1 x 0.8 x 9.2 inches

Shipping Weight: 1.3 pounds (View shipping rates and policies)

Average Customer Review: 4.8 out of 5 stars   4 customer reviews

Best Sellers Rank: #1,046,820 in Books (See Top 100 in Books)   #71 inÃ Â Books > Science & Math > Mathematics > Infinity   #747 inÃ Â Books > Science & Math > Physics > Mathematical Physics   #879 inÃ Â Books > Science & Math > Mathematics > Mathematical Analysis

Customer Reviews

Laplace transforms continue to be a very important tool for the engineer, physicist and applied mathematician. They are also now useful to financial, economic and biological modellers as these disciplines become more quantitative. Any problem that has underlying linearity and with solution based on initial values can be expressed as an appropriate differential equation and hence be solved using Laplace transforms. In this book, there is a strong emphasis on application with the necessary mathematical grounding. There are plenty of worked examples with all solutions provided. This enlarged new edition includes generalised Fourier series and a completely new chapter on wavelets. Only knowledge of elementary trigonometry and calculus are required as prerequisites. An Introduction to Laplace Transforms and Fourier Series will be useful for second

and third year undergraduate students in engineering, physics or mathematics, as well as for graduates in any discipline such as financial mathematics, econometrics and biological modelling requiring techniques for solving initial value problems.

Phil Dyke has over 40 years experience teaching at UK Universities, and for the past 6 years has based a course on the subject of this book. He has also used Laplace transforms and Fourier methods in his research. He has been a professor of applied mathematics at Plymouth University for over 20 years.

This is an excellent introduction text about Fourier Series and Laplace Transforms. I found the writing to be very concise and clear and technical enough to satisfy those who want a bit of rigour but not too much to scare someone away.There is a nice introduction to Fourier Transforms which I think is very good, however it is a bit small for my taste. Also there is a small introduction to signal analysis which will please the engineer seeing it for the first time.I think the bread and butter is in chapter 7 with inverse Laplace transforms using complex analysis. It is an excellent introduction to using the Bromwich contour to evaluate inverse Laplace transforms. It is a great introduction to that topic and I have used it as a stepping stone to look at more advanced stuff.As another reviewer mentioned all the exercises have detailed solutions worked out in the back which should please any self-learner. Plus given the relativity cheap price (not as cheap as Dover) it is worth the money.

This textbook tries to strike a balance between the "toolkit" (how to use it) approach (supposedly) desired by engineers and the more rigorous mathematician's development. Speaking as an engineer, I found it not as intuitive as I had hoped (I'm more mathematically-oriented than most engineers) However, the book is clearly written and develops the arguments in small steps. Recommend it as helpful, but perhaps supplemented by more careful development.

Great book and excellent service!

This is an ideal introduction for mathematicians and applied scientists. Written in an easy to understand style and full of good relevant examples. I guess only the more mathematical will be able to digest the last chapter.All exercises have not only answers but solutions which students will appreciate.

Download to continue reading...

An Introduction to Laplace Transforms and Fourier Series (Springer Undergraduate Mathematics Series) Laplace Transforms Mathematics for Finance: An Introduction to Financial Engineering (Springer Undergraduate Mathematics Series) Fourier Series, Transforms, and Boundary Value Problems: Second Edition (Dover Books on Mathematics) Fourier Transforms (Dover Books on Mathematics) A First Course in Discrete Mathematics (Springer Undergraduate Mathematics Series) Mathematics and Technology (Springer Undergraduate Texts in Mathematics and Technology) The Mathematics of Medical Imaging: A BeginnerÃ¢â¬â„¢s Guide (Springer Undergraduate Texts in Mathematics and Technology) An Introduction to Mathematical Finance with Applications: Understanding and Building Financial Intuition (Springer Undergraduate Texts in Mathematics and Technology) Information and Coding Theory (Springer Undergraduate Mathematics Series) Essential Mathematical Biology (Springer Undergraduate Mathematics Series) Vector Calculus (Springer Undergraduate Mathematics Series) Hyperbolic Geometry (Springer Undergraduate Mathematics Series) Metric Spaces (Springer Undergraduate Mathematics Series) Essential Topology (Springer Undergraduate Mathematics Series) Combinatorics and Graph Theory (Springer Undergraduate Texts in Mathematics and Technology) Fourier Analysis and Its Applications (Pure and Applied Undergraduate Texts) Linear Algebra: An Introduction to Abstract Mathematics (Undergraduate Texts in Mathematics) Laplace Transform Discrete Mathematics: Elementary and Beyond (Undergraduate Texts in Mathematics)