



A Student's Guide to Vectors and Tensors

By Daniel A. Fleisch

Download now

Read Online ➔

A Student's Guide to Vectors and Tensors By Daniel A. Fleisch

Vectors and tensors are among the most powerful problem-solving tools available, with applications ranging from mechanics and electromagnetics to general relativity. Understanding the nature and application of vectors and tensors is critically important to students of physics and engineering. Adopting the same approach used in his highly popular *A Student's Guide to Maxwell's Equations*, Fleisch explains vectors and tensors in plain language. Written for undergraduate and beginning graduate students, the book provides a thorough grounding in vectors and vector calculus before transitioning through contra and covariant components to tensors and their applications. Matrices and their algebra are reviewed on the book's supporting website, which also features interactive solutions to every problem in the text where students can work through a series of hints or choose to see the entire solution at once. Audio podcasts give students the opportunity to hear important concepts in the book explained by the author.

↓ [Download A Student's Guide to Vectors and Tensors ...pdf](#)

📄 [Read Online A Student's Guide to Vectors and Tensors ...pdf](#)

A Student's Guide to Vectors and Tensors

By Daniel A. Fleisch

A Student's Guide to Vectors and Tensors By Daniel A. Fleisch

Vectors and tensors are among the most powerful problem-solving tools available, with applications ranging from mechanics and electromagnetics to general relativity. Understanding the nature and application of vectors and tensors is critically important to students of physics and engineering. Adopting the same approach used in his highly popular *A Student's Guide to Maxwell's Equations*, Fleisch explains vectors and tensors in plain language. Written for undergraduate and beginning graduate students, the book provides a thorough grounding in vectors and vector calculus before transitioning through contra and covariant components to tensors and their applications. Matrices and their algebra are reviewed on the book's supporting website, which also features interactive solutions to every problem in the text where students can work through a series of hints or choose to see the entire solution at once. Audio podcasts give students the opportunity to hear important concepts in the book explained by the author.

A Student's Guide to Vectors and Tensors By Daniel A. Fleisch Bibliography

- Sales Rank: #28031 in Books
- Brand: imusti
- Published on: 2011-11-14
- Original language: English
- Number of items: 1
- Dimensions: 8.98" h x .39" w x 5.98" l, .75 pounds
- Binding: Paperback
- 206 pages



[Download A Student's Guide to Vectors and Tensors ...pdf](#)



[Read Online A Student's Guide to Vectors and Tensors ...pdf](#)

Editorial Review

Review

"This book is an excellent resource for science and engineering students who can use it as a quick reference while studying topics such as physics, statics, dynamics, electromagnetism, and fluid mechanics. The author is commended for his effective and elucidating style, with graphical explanations and without mathematical long-windedness. Reading specific sections in this book a priori not only serves as a just-in-time preparation, but also empowers students to tackle subjects that require a good grasp of vector algebra, vector differential operators, vector transformation, and tensors. Highly recommended."

R.N. Laoulache, University of Massachusetts, Dartmouth for Choice Magazine

"This book is a short, concise teaching aid devoted to vector analysis and tensors. Each chapter ends with a set of problems whose interactive solutions can be found on a website. This is both helpful and innovative. One of the author's goals for this book is to provide in-depth coverage of covariant and contravariant tensors. This is timely, since some undergraduate physics textbooks are now using both types of tensors. Fleisch's book is an excellent and challenging resource for students in this subject area."

Albert C. Claus, physics department at Loyola University, Chicago for Optics and Photonics News

"This highly readable introductory book will be of great assistance to those taking undergraduate or graduate courses and meeting tensors for the first time"

George Matthews, AMIMA, IMA Book Reviews

About the Author

Daniel Fleisch is an Associate Professor in the Department of Physics at Wittenberg University, where he specializes in electromagnetics and space physics. He is the author of *A Student's Guide to Maxwell's Equations* (Cambridge University Press, 2008).

Users Review

From reader reviews:

Alvin Pryor:

Do you have favorite book? For those who have, what is your favorite's book? Publication is very important thing for us to understand everything in the world. Each book has different aim or maybe goal; it means that book has different type. Some people sense enjoy to spend their a chance to read a book. They are really reading whatever they take because their hobby is definitely reading a book. How about the person who don't like looking at a book? Sometime, particular person feel need book when they found difficult problem or even exercise. Well, probably you will want this *A Student's Guide to Vectors and Tensors*.

Jere Araujo:

Have you spare time for the day? What do you do when you have more or little spare time? Yep, you can choose the suitable activity intended for spend your time. Any person spent their spare time to take a stroll, shopping, or went to the Mall. How about open as well as read a book eligible *A Student's Guide to Vectors and Tensors*? Maybe it is for being best activity for you. You know beside you can spend your time with the

favorite's book, you can smarter than before. Do you agree with it is opinion or you have different opinion?

Mary Tobin:

You can find this A Student's Guide to Vectors and Tensors by visit the bookstore or Mall. Only viewing or reviewing it can to be your solve issue if you get difficulties for the knowledge. Kinds of this reserve are various. Not only by simply written or printed but additionally can you enjoy this book through e-book. In the modern era similar to now, you just looking from your mobile phone and searching what their problem. Right now, choose your current ways to get more information about your e-book. It is most important to arrange yourself to make your knowledge are still upgrade. Let's try to choose appropriate ways for you.

Joseph Whitely:

As a university student exactly feel bored to be able to reading. If their teacher asked them to go to the library or make summary for some guide, they are complained. Just small students that has reading's heart and soul or real their interest. They just do what the educator want, like asked to go to the library. They go to at this time there but nothing reading significantly. Any students feel that examining is not important, boring in addition to can't see colorful pics on there. Yeah, it is to get complicated. Book is very important to suit your needs. As we know that on this time, many ways to get whatever we wish. Likewise word says, many ways to reach Chinese's country. Therefore , this A Student's Guide to Vectors and Tensors can make you feel more interested to read.

Download and Read Online A Student's Guide to Vectors and Tensors By Daniel A. Fleisch #28N9IOVPGBC

Read A Student's Guide to Vectors and Tensors By Daniel A. Fleisch for online ebook

A Student's Guide to Vectors and Tensors By Daniel A. Fleisch 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 A Student's Guide to Vectors and Tensors By Daniel A. Fleisch books to read online.

Online A Student's Guide to Vectors and Tensors By Daniel A. Fleisch ebook PDF download

A Student's Guide to Vectors and Tensors By Daniel A. Fleisch Doc

A Student's Guide to Vectors and Tensors By Daniel A. Fleisch Mobipocket

A Student's Guide to Vectors and Tensors By Daniel A. Fleisch EPub