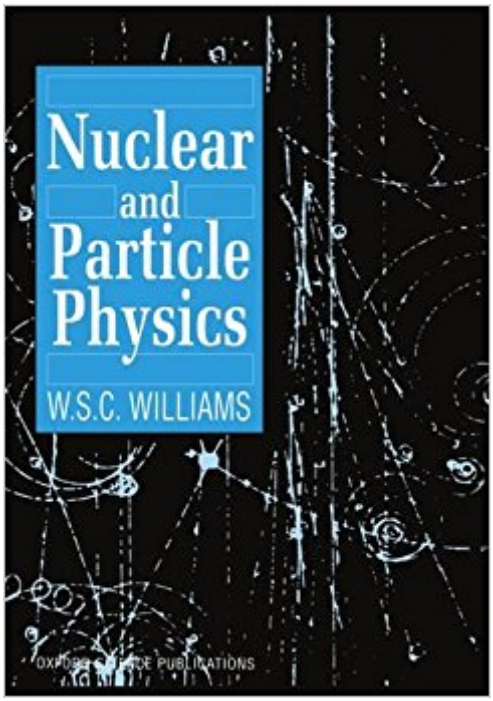
Nuclear And Particle Physics (Oxford Science Publications)



Synopsis

A unique balance of particle and nuclear physics is presented in this outstanding introduction to the field. Nuclear properties, decay, structure and reactions are covered initially, followed by discussions of nuclear forces, B-decay, and elementary particles and their interactions. Further chapters include strong, weak and electromagnetic interactions, and an up-to-date presentation of the problems facing particle physics. Whenever possible, the reader is encouraged to appreciate the quantitative aspect of a phenomenon in addition to learning a descriptive explanation. Many illustrations supplement this excellent text.

Book Information

Series: Oxford Science Publications

Paperback: 400 pages

Publisher: Clarendon Press; 1 edition (May 30, 1991)

Language: English

ISBN-10: 0198520468

ISBN-13: 978-0198520467

Product Dimensions: 10 x 0.9 x 8.1 inches

Shipping Weight: 2.2 pounds (View shipping rates and policies)

Average Customer Review: 2.9 out of 5 starsÂ Â See all reviewsÂ (9 customer reviews)

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Customer Reviews

As a 4th year undergraduate physics student, I used Williams' book in my introductory nuclear physics course. I found the style and layout of the book to be extremely difficult to follow. Though I am very interested in the subject matter, I was very hard-pressed to make reasonable progress while reading Williams. Too often, information is placed in awkward "boxes", or is inadequately introduced. To make things worse, the book is rife with errors in grammar and spelling, not to mention awkward phrasing. In section 8.10, Willams chooses a script J to represent a moment of inertia and an I for angular momentum--contrary to convention--seemingly, in an attempt to confuse the student!

Not happy with this book. The man knows his physics, but his use of the English language needs a

good make-over. Sentences too long, very few commas, and muddled grammar. Many proof-reading errors. Problems are too hard for beginners, being excerpts from Honours exams - which students are tested on at the END of the course, not while they are still learning. No examples, no solutions and no colour. Other books are worse, though. The definitive Nuclear Physics textbook is yet to be written. Surely there must be a professor somewhere who knows his stuff, is a half-decent writer and has some idea of style and composition.

The main problem with this book is that it gives no worked examples. It also gives problems that require a knowledge of material only covered in later chapters of the book. All in all there are probably better books available from the students perspective.

As a physics graduate student, I used this text in a refresher course at the upper undergrad/grad level. The text contains quite a few typos, but there is a errata available. I have not seen many text that deal with both nuclear and particle physics, so that is a plus. However, I must say the text is not easy to read, and can be confusing at times. However, I do think it will be a useful reference, and is a good place to start for beginners in this field.

It is a very nice, pedagogical textbooc at an intermediate level. I found the explanations clear and detailed to a desired degree. I covers all the basic topic and I am going to consult it when teaching a Nuclear Physics class at undergraduate level.As a university professor I find it to be one of the top ten books on the subject.

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