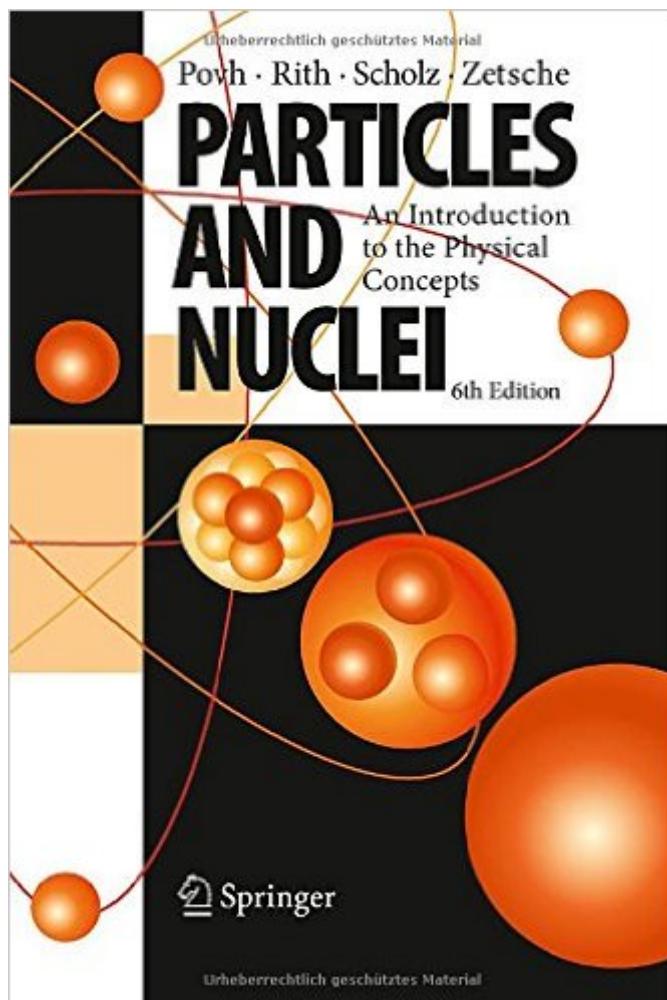


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# Particles And Nuclei: An Introduction To The Physical Concepts



## **Synopsis**

To cope with modern developments, especially in nuclear physics research, this textbook presents nuclear and particle physics from a unifying point of view. The first part, Analysis, is devoted to disentangling the substructure of matter. The second part, Synthesis, shows how the elementary particles may be combined to build hadrons and nuclei. A section on neutrino oscillations and one on nuclear matter at high temperatures bridge the field of "nuclear and particle physics" and "modern astrophysics and cosmology". New developments are also covered. This concise text has become a standard reference for advanced and undergraduate courses.

## **Book Information**

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## **Customer Reviews**

This is a fairly poorly written and translated book. Perhaps the original work was well written, but something has definitely been lost in translation. The trouble with the book is that it cares too much about experimental details and not enough about seeing the larger theoretical picture. A typical mode of presentation in this book is to show a scattering graph, get excited about resonant peaks, pull obscure equations out of research papers and use it all to conclude that something exists. The book then moves on to the next member of the particle zoo. In principle this is not a problem since we are after all graduate students, but in practice it leads to far too much in the way of pointless trivia that only serves to conceal the bigger picture. A far better treatment would start out with the standard model and the fundamental forces and use the laws and properties described to deduce the various phenomena seen in elementary particle physics (and then maybe provide experimental

details) as opposed to using the phenomenon to construct the model and forces. Another major issue with the book is that the exercises go all over the place - using equations and graphs from other (not yet studied because they're further along) chapters. I would not recommend that anyone waste the \$60 or so that this book costs unless they're already familiar with the theoretical content and just want an experimentalist overview of the subject.

The reviewer who wrote "A very clear presentation" must have read a different book. Constants are used without first being defined. Formulae are introduced with no justification or derivation. The reader is constantly referred forward e.g. on page 37 of the 6th edition "cf Fig. 18.6". I have never written a book review before but I felt compelled to make other people aware of what they might be about to buy.

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