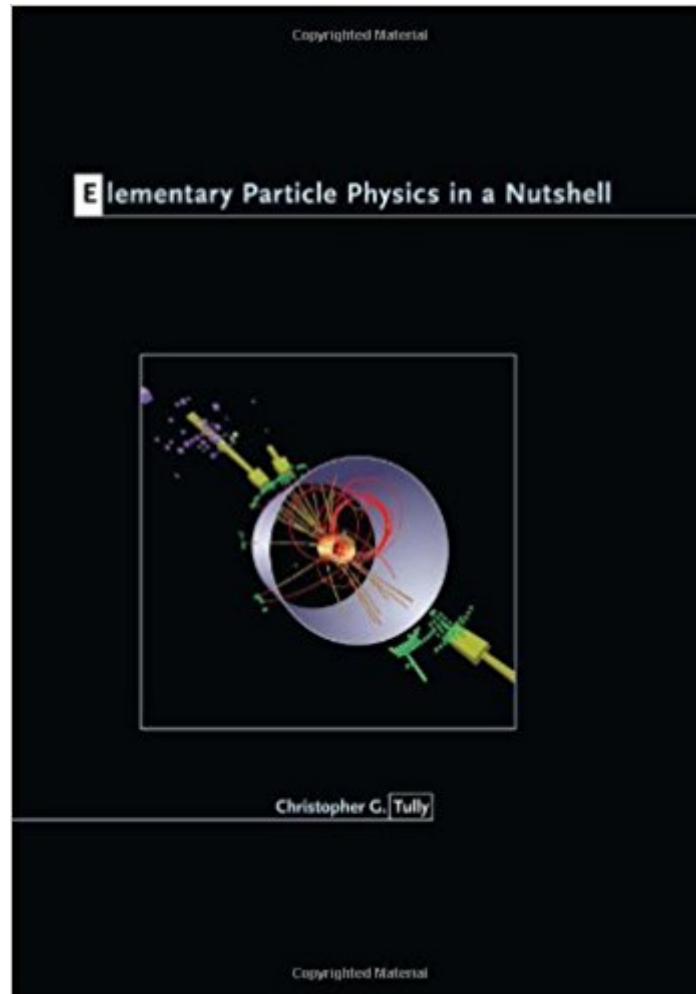




**Ebook Directory**  
the best source of ebook

The book was found

# Elementary Particle Physics In A Nutshell



## Synopsis

The new experiments underway at the Large Hadron Collider at CERN in Switzerland may significantly change our understanding of elementary particle physics and, indeed, the universe. This textbook provides a cutting-edge introduction to the field, preparing first-year graduate students and advanced undergraduates to understand and work in LHC physics at the dawn of what promises to be an era of experimental and theoretical breakthroughs. Christopher Tully, an active participant in the work at the LHC, explains some of the most recent experiments in the field. But this book, which emerged from a course at Princeton University, also provides a comprehensive understanding of the subject. It explains every elementary particle physics process--whether it concerns nonaccelerator experiments, particle astrophysics, or the description of the early universe--as a gauge interaction coupled to the known building blocks of matter. Designed for a one-semester course that is complementary to a course in quantum field theory, the book gives special attention to high-energy collider physics, and includes a detailed discussion of the state of the search for the Higgs boson. Introduces elementary particle processes relevant to astrophysics, collider physics, and the physics of the early universe Covers experimental methods, detectors, and measurements Features a detailed discussion of the Higgs boson search Includes many challenging exercises Professors: A supplementary Instructor's Manual which provides solutions for Chapters 1-3 of the textbook, is available as a PDF. It is restricted to teachers using the text in courses. To obtain a copy, please email your request to: Ingrid\_Gnerlich "at" press.princeton.edu.

## Book Information

Series: In a Nutshell

Hardcover: 320 pages

Publisher: Princeton University Press (October 30, 2011)

Language: English

ISBN-10: 0691131163

ISBN-13: 978-0691131160

Product Dimensions: 7.1 x 0.9 x 10.1 inches

Shipping Weight: 1.9 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #271,240 in Books (See Top 100 in Books) #21 in [Books > Science & Math > Physics > Nuclear Physics > Atomic & Nuclear Physics](#) #31 in [Books > Science & Math > Physics > Nuclear Physics > Particle Physics](#) #50 in [Books > Science & Math > Physics >](#)

## Customer Reviews

"[T]he book is a valuable and important addition to libraries, personal and institutional. It would serve as an excellent textbook to students taking up research in elementary particle physics and also as a reference volume."--B. Ananthanarayan, Current Science

"This is a remarkable book in its breadth and depth, with many beautiful and useful things in it. It provides a very timely introduction to the physics of the LHC era with clarity and sophistication."--Henry J. Frisch, University of Chicago

"Tully's book provides a new perspective on elementary particle physics as the era of the LHC begins. Elementary Particle Physics in a Nutshell gives the starting student or seasoned practitioner the substance and style of LHC physics while also giving the development of the Standard Model its due. The author has been painstaking in the exposition of paradoxes that are not normally discussed in texts at this level. A superb book."--Peter Fisher, Massachusetts Institute of Technology

[Download to continue reading...](#)

Elementary Particle Physics in a Nutshell Finite Element Methods for Particle Transport: Applications to Reactor and Radiation Physics (Research Studies in Particle and Nuclear Technology) Quantum Electrodynamics: Gribov Lectures on Theoretical Physics (Cambridge Monographs on Particle Physics, Nuclear Physics and Cosmology) Family Law in a Nutshell, 5th (In a Nutshell (West Publishing)) (Nutshell Series) Facts and Mysteries in Elementary Particle Physics Quarks: Frontiers In Elementary Particle Physics Introduction to Elementary Particle Physics Gauge Theory of Elementary Particle Physics: Problems and Solutions Statistical Methods for Data Analysis in Particle Physics (Lecture Notes in Physics) Lie Algebras In Particle Physics: from Isospin To Unified Theories (Frontiers in Physics) Particle Accelerator Physics (Graduate Texts in Physics) From Special Relativity to Feynman Diagrams: A Course in Theoretical Particle Physics for Beginners (UNITEXT for Physics) Gauge Theories in Particle Physics, Second Edition (Graduate Student Series in Physics) Admiralty in a Nutshell, 6th (In a Nutshell (West Publishing)) (Nutshells) Land Use in a Nutshell (Nutshell Series) Government Contracts in a Nutshell, 5th (West Nutshell Series) Government Contracts in a Nutshell (Nutshell Series) Regulated Industries in a Nutshell (Nutshell Series) Animal Law in a Nutshell (In a Nutshell (West Publishing)) (Nutshells) Burr's Entertainment Law in a Nutshell, 2d (In a Nutshell (West Publishing))

Contact Us

DMCA

Privacy

FAQ & Help