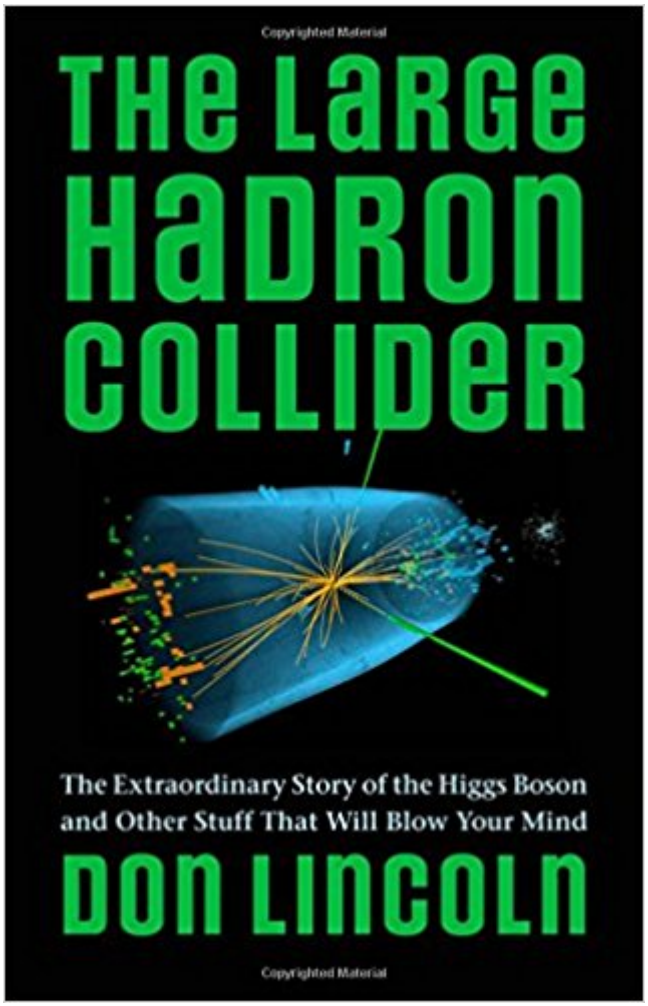
The book was found

The Large Hadron Collider: The Extraordinary Story Of The Higgs Boson And Other Stuff That Will Blow Your Mind



PDF
Adobe
DOWNLOAD EBOOK

Synopsis

Since 2008 scientists have conducted experiments in a hyperenergized, 17-mile supercollider beneath the border of France and Switzerland. The Large Hadron Collider (or what scientists call "the LHC") is one of the wonders of the modern worldâ •a highly sophisticated scientific instrument designed to recreate in miniature the conditions of the universe as they existed in the microseconds following the big bang. Among many notable LHC discoveries, one led to the 2013 Nobel Prize in Physics for revealing evidence of the existence of the Higgs boson, the so-called God particle. Picking up where he left off in The Quantum Frontier, physicist Don Lincoln shares an insiderâ ™s account of the LHCâ ™s operational history and gives readers everything they need to become well informed on this marvel of technology. Writing about the LHCâ ™s early days, Lincoln offers keen insight into an accident that derailed the operation nine days after the colliderâ ™s 2008 debut. A faulty solder joint started a chain reaction that caused a massive explosion, damaged 50 superconducting magnets, and vaporized large sections of the conductor. The crippled LHC lay dormant for over a year, while technical teams repaired the damage.Lincoln devotes an entire chapter to the Higgs boson and Higgs field, using several extended analogies to help explain the importance of these concepts to particle physics. In the final chapter, he describes what the discovery of the Higgs boson tells us about our current understanding of basic physics and how the discovery now keeps scientists awake over a nagging inconsistency in their favorite theory.As accessible as it is fascinating, The Large Hadron Collider reveals the inner workings of this masterful achievement of technology, along with the mind-blowing discoveries that will keep it at the center of the scientific frontier for the foreseeable future.

Book Information

Hardcover: 240 pages

Publisher: Johns Hopkins University Press (August 21, 2014)

Language: English

ISBN-10: 1421413515

ISBN-13: 978-1421413518

Product Dimensions: 6 x 0.8 x 9 inches

Shipping Weight: 1 pounds (View shipping rates and policies)

Average Customer Review: 4.6 out of 5 starsÂ Â See all reviewsÂ (14 customer reviews)

Best Sellers Rank: #212,842 in Books (See Top 100 in Books) #31 inÂ Books > Science & Math > Physics > Nuclear Physics > Particle Physics #32 inÂ Books > Science & Math > Physics >

Applied #193 inÂ Books > Science & Math > Physics > Quantum Theory

Customer Reviews

Lincoln's book is extremely well done and extends the work he did on his first book , The Quantum Frontier.The LHC's finding of the Higgs Field & Boson and Lincoln's descriptive review is outstanding.Almost as good as being there - ALMOSTJJ

Great book lots of good information if you're interested in CERN and the finding of the Higgs Boson. Don goes into a lot of detail explaining much of basic subatomic physics as he gets the point of the reason for the LHC.

This book was interesting but did not blow my mind. Here's what would have blown my mind. "The Universe started out as energy. Yet today most of it is matter. We all know that matter and energy are interchangeable. We even know how they equate: the change in energy equals the change in mass times the speed of light squared (E = mC2). We are also pretty good at changing matter to energy, in nuclear power plants and hydrogen bombs. What we donâ ™t know how to do is change energy to matter. And that must happen a lot, or the universe would be mostly energy and I wouldnâ ™t be here to write this book. So how does that happen? It turns out that it requires a field that affects energy particles and gives them mass. This is the story of why we need that field and how the CERN Large Hadron Collider proved that it exists.â • Don Lincoln is very good at explaining complex particle physics in laymanâ ™s terms. He is not very good at translating the mysteries that excite a particle physicist into adventures that excite a layman. If you are interested in CERN, the LHC, and the Higgs Boson, by all means read this book. If you want to have your mind blown by cosmic mysteries, stick with Steven Hawking.

Great insight into the workings of the LHC -- be prepared for extreme detail. Two flaws (in my mind): Each and every measurement of size, distance, etc., is given in both English and metric units; very distracting. Too many awkward comparisons in an attempt to clarify concepts. He should realize that anyone reading the book can grasp the ideas without comparisons to too simple things.

This book offers much more than just a bunch of information about the LHC. For non-physicists (like me), the book brings a wealth of basic scientific education on subparticles and other technical information that are essential for a correct understanding of what then LHC was built for and what its

current experiments are doing. I recommend it highly.

An excellent discussion by an informed author who loves his topic....very approachable for the layman....

Very technical but interesting. I don't know how you could write about this subject without being technical

Download to continue reading...

The Large Hadron Collider: The Extraordinary Story of the Higgs Boson and Other Stuff That Will Blow Your Mind Particles and the Universe: From the Ionian School to the Higgs Boson and Beyond Present at the Creation: Discovering the Higgs Boson The Story of Stuff: How Our Obsession with Stuff Is Trashing the Planet, Our Communities, and Our Health-and a Vision for Change The Microwave Gourmet Cookbook!: Quick and Easy Microwave Cooking Recipes that will Blow your Mind! (Fast, Quick, and Easy Cooking Recipes and Cooking Tips! Book 1) Sing You Home Large Print (Large Print, companion soundtrack, Large Print) Word Search Puzzles Large Print: Large print word search, Word search books, Word search books for adults, Adult word search books, Word search puzzle books, Extra large print word search Buried in the Sky: The Extraordinary Story of the Sherpa Climbers on K2's Deadliest Day: The Extraordinary Story of the Sherpa Climbers on K2's Deadliest Day Most Wanted Particle: The Inside Story of the Hunt for the Higgs, the Heart of the Future of Physics The De-Textbook: The Stuff You Didn't Know About the Stuff You Thought You Knew Stuff Every Husband Should Know (Stuff You Should Know) 1,227 Quite Interesting Facts to Blow Your Socks Off Higgs Discovery: The Power of Empty Space (Kindle Single) Montcalm's Crushing Blow: French and Indian Raids along New York's Oswego River 1756 Big Blow: A Tale From Ocean City (Ocean City Mysteries Book 3) Break, Blow, Burn: Camille Paglia Reads Forty-three of the World's Best Poems Saving Stuff: How to Care for and Preserve Your Collectibles, Heirlooms, and Other Prized Possessions The Best Large Print Word Search Puzzle Book: A Collection of 50 Themed Word Search Puzzles; Great for Adults and for Kids! (The Best Large Print Word Search Puzzle Books) (Volume 1) 101 Wild Game Recipes - Large Game: Large Game (The Hunter's Cookbook Book 3) Large Print Easy Monday Crosswords (Large Print Crosswords)

Dmca