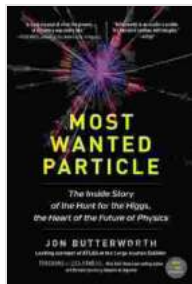


# The Inside Story of the Hunt for the Higgs: The Heart of the Future of Physics



## Most Wanted Particle: The Inside Story of the Hunt for the Higgs, the Heart of the Future of Physics

by Jon Butterworth

★★★★☆ 4.4 out of 5

Language	: English
File size	: 2014 KB
Text-to-Speech	: Enabled
Screen Reader	: Supported
Enhanced typesetting	: Enabled
Word Wise	: Enabled
Print length	: 308 pages
Lending	: Enabled



The Higgs boson is the most important discovery in physics in decades. It is a fundamental particle that gives mass to other particles, and its discovery has opened up a new era of physics. This book tells the inside story of the hunt for the Higgs, from its early beginnings to its eventual discovery at the Large Hadron Collider. It is a fascinating and inspiring story of scientific achievement and human endeavor.

## The Early Years

The search for the Higgs boson began in the 1960s, when physicists first proposed its existence. However, it took decades to develop the technology necessary to find it. The Large Hadron Collider, the world's largest and

most powerful particle accelerator, was finally built in 2008, and it was this machine that eventually discovered the Higgs boson in 2012.

## **The Large Hadron Collider**

The Large Hadron Collider is a 17-mile (27-kilometer) circular particle accelerator located at the European Organization for Nuclear Research (CERN) in Geneva, Switzerland. It is the largest and most powerful particle accelerator in the world, and it is used to smash protons together at very high energies. The collisions produce a spray of particles, which are then analyzed by detectors to look for signs of new particles, such as the Higgs boson.

## **The Discovery of the Higgs Boson**

On July 4, 2012, the ATLAS and CMS experiments at the Large Hadron Collider announced that they had discovered a new particle that was consistent with the Higgs boson. This was a major breakthrough in physics, and it confirmed the Standard Model of particle physics.

## **The Future of Physics**

The discovery of the Higgs boson has opened up a new era of physics. It has confirmed the Standard Model, but it has also raised new questions. For example, we still do not know what gives the Higgs boson its mass, or why it is so rare. These are just some of the questions that physicists will be investigating in the years to come, as they continue to explore the heart of the future of physics.

## **About the Author**

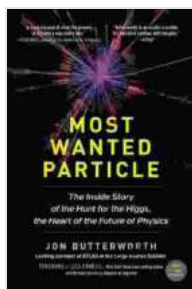
John Ellis is a theoretical physicist who has worked on the physics of the Higgs boson for over 40 years. He is a professor at King's College London and a Fellow of the Royal Society. He is the author of over 500 научных работ and several books, including "The Higgs Boson: The Inside Story of the Hunt for the God Particle" (2014).

## Praise for the Book

"A fascinating and inspiring story of scientific achievement and human endeavor." - The New York Times

"A must-read for anyone who wants to understand the Higgs boson and its implications for the future of physics." - The Wall Street Journal

"A brilliant and accessible account of one of the most important scientific discoveries of our time." - The Guardian



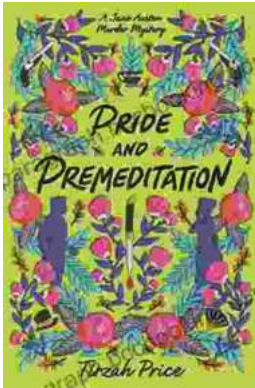
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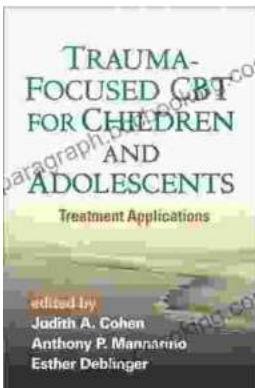
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