[PDF] Why Does E=mc2? (And Why Should We Care?)

Brian Cox, Jeff Forshaw - pdf download free book

Books Details:

Title: Why Does E=mc2? (And Why Shou Author: Brian Cox, Jeff Forshaw

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Description:

From Publishers Weekly British theoretical physicists Cox and Forshaw offer lay readers a fascinating account of modern scientists' view of the world, and how it got that way. Without using complicated mathematics, Cox and Forshaw show how the search for "mathematical consistency" can guide scientists in finding the "laws that describe physical reality." The authors provide the historical context that set the stage for Einstein's discovery, providing an easy-to-grasp explanation of counterintuitive experimental evidence, demonstrating how the speed of light acts as a "cosmic speed limit," the exception that proves the rule of relativity. The authors also clearly explain the tide shift that Einstein caused, transforming scientists' understanding of the world-"common-sense notions regarding space and time are dashed and replaced by something entirely new, unexpected,

and elegant." Though the basics are covered in detail, there's plenty here for science buffs to ponder.

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Review

Blogcritics.org, 8/22/10

"Cox and Forshaw make a good point in stating that space, time, and even nature are contained within the equation...Although the theory might be tricky, the authors show they understand readers are not on their level. By going one step at a time, the buildup ensures each chuck is absorbed slowly rather than all at once."

Booktrade.info, 8/24/10

"This book takes the world's most famous equation apart and puts it back together again in a way that is lively and understandable. We were delighted to find our knowledge of equations—long forgotten since leaving school for some of us—reinvigorated and felt ourselves rediscovering our enjoyment of mathematics."

Choice, September 2010

"Thorough, engaging."

New Scientist, 8/28/10

"Brian Cox and Jeff Forshaw tackle the most famous equation of all time in a remarkable comprehensible way...The pair make some surprising points that I haven't seen expressed in quite the same way...Well worth a read."

January, 8/16/10

"Particle physics professor Brian Cox and professor of theoretical physics, Jeff Forshaw are clearly trained to have the answers. But here's something that training as a physicist simply can not teach: they deliver their message not only clearly, but with a deep and resonant humor."

BiblioBuffet.com

"[Cox and Forshaw are] good communicators overall (they find understandable ways of explaining most concepts) and they have important things to say...What's important about this book is not that it says something new about science. It's that it gives a primer for understanding how a certain type of scientist sees the universe."

New York Journal of Books

"[An] easy-to-read little book...[Cox and Forshaw] very cleverly introduce all the ideas we will need to get to the world's most famous equation, E=mc2. What is more, they focus on the most puzzling part: the question of what c, the speed of light, is doing in there...Their arguments are so presented so clearly...It is to their credit that they do not always hide the complexity nor the long history of ideas behind relativity...It is also to their credit that they make the case, as Feynman and others have done before them, that, at some level, the weirdness of the universe just has to be accepted...Will help school science teachers as much as it will their students."

The Guardian, 10/18/10

"The reader is in supremely capable hands with Brian Cox and Jeff Forshaw...For anyone afraid of technicalities, Cox and Forshaw lead the reader by the hand through the complexity, adding in rest stops of wit and real-world examples. Even the hardest bits feel like being taken on an army assault

course by the two friendliest drill sergeants in the world. You may have to read some bits twice but, boy, will you feel better for it once the insights become clear. In the process of exposing the science, the authors do a good job of showing how the hard end of research works: abandon all assumptions and re-build everything from scratch."

London Daily Telegraph, 10/19/10

"[A] brilliant exposition of Einstein's famous equation... [Gives] a fresh understanding of Einstein's genius. A truly impressive achievement."

The Independent, 10/20/10

"Brian Cox and Jeff Forshaw take Einstein's description of the relationship between energy and matter, pull it apart and put it together again, with some detours into space and time along the way. Not an easy read, but not an easy subject."

Nature, 10/28/10

"Provide[s] an accessible explanation of Einstein's iconic equation."

Cape Times (South Africa), 11/5/10

"Fans of the physical sciences will undoubtedly enjoy this read...The true success of *Why Does* E=mc2? lies in Cox and Forshaw having made the most esoteric of ideas...accessible to the layman...The pair manage to hold their readers' hands as they skip through the figures and facts—without patronizing them—to create a logical map between theory and consequence."

Midwest Book Review, December 2010

"An easy survey of science for non-scientists."

London Times (UK), 1/6/11

Name one of the "Top 10 Science Books of 2010."

The Scotsman (Scotland), 12/11/10

Named one of the "Top Reads of 2010."

The Bookseller, UK, 3/25/11

"[Cox] will join an elite group of just eight authors who've penned a science book that has sold in six figures."

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