



The Zoomable Universe: An Epic Tour Through Cosmic Scale, from Almost Everything to Nearly Nothing

Caleb Scharf (Illustrations) , Ron Miller (Illustrations)

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An epic, full-color visual journey through all scales of the universe

In *The Zoomable Universe*, the award-winning astrobiologist Caleb Scharf and the acclaimed artist Ron Miller take us on an epic tour through all known scales of reality, from the largest possible magnitude to the smallest. Drawing on cutting-edge science, they begin at the limits of the observable universe, a scale spanning 10^{27} meters--about 93 billion light-years. And they end in the subatomic realm, at 10^{-35} meters, where the fabric of space-time itself confounds all known rules of physics. In between are galaxies, stars and planets, oceans and continents, plants and animals, microorganisms, atoms, and much, much more. Stops along the way--all enlivened by Scharf's sparkling prose and his original insights into the nature of our universe--include the brilliant core of the Milky Way, the surface of a rogue planet, the back of an elephant, and a sea of jostling quarks.

The Zoomable Universe is packed with more than 100 original illustrations and infographics that will captivate readers of every age. It is a whimsical celebration of discovery, a testament to our astounding ability to see beyond our own vantage point and chart a course from the farthest reaches of the cosmos to its subatomic depths--in short, a must-have for the shelves of all explorers.

The Zoomable Universe: An Epic Tour Through Cosmic Scale, from Almost Everything to Nearly Nothing Details

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Author : Caleb Scharf (Illustrations) , Ron Miller (Illustrations)

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From Reader Review The Zoomable Universe: An Epic Tour Through Cosmic Scale, from Almost Everything to Nearly Nothing for online ebook

Tony Tkach says

This book altered my mind. I had never really considered my place in the universe, but The Zoomable Universe shows how one is both insignificant, and an essential part at the same time. It features a well-explained story, wonderful photography, infographics, and art work. They work together seamlessly. 5/5 on Goodreads

Ken says

Truly epic and staggering scale. Luv the milky way being merely a speck of dust if the universe were the size of a room (didn't check). C. Scharf explains the biophysics well but not the quantum mechanics part.

Aharon Rosensweig says

This book is amazing! The title describes it so well, giving you a sense of how big and empty the universe is. I especially love the earlier chapters that give you a great feeling of what is being taught. Recommend it to any science lover!

Lisa says

Whoa... mind blown.

Jimmy Ele says

Amazing. The title is self explanatory.

Karen says

Read it on my computer. The illustrations may be much more impressive when printed. I love beautiful writing, feeling awe about the vastness of the universe, and learning. This book just feels like it is written for a elementary or middle schooler.

Kara says

The best sort of adult coffee table book. The illustrations (many, many of them full page) are gorgeous, and they work so well with the concept of zooming through the scale of the universe. Since so many scientific books don't include large pictures, especially if they aren't textbooks, *The Zoomable Universe* really helped me piece together some of the other content I've been reading. I do want to note that some of the pictures at the high and low end of the spectrum are necessarily speculative, as we don't really know what the outside of our galaxy or the inside of an atom look like, but that didn't really detract from my enjoyment. I do agree with other reviewers that they should have included diverse humans besides older white males in their illustrations.

For the most part, the text is easily understandable to a layperson, though once you get to the quarks and gluons at the end things get a little complicated. (I have also been doing quite a bit of reading on physics lately, so I might have understood a little bit more than the "average" reader.) This book is intended for adults or very smart and/or curious high schoolers, though younger readers will probably enjoy paging through the illustrations and skipping the text. However young or old you are, you'll come away awed at the size and complexity of our universe and the fact that we are alive and aware enough to appreciate it.

Ben says

A great and fascinating look from the cosmos down to the atoms, the nuts and bolts and more of how the universe (and us, and everything) works. The book does a really good job of explaining more of the jargon and technical side and hard to understand aspects of the science (quarks, string theory, quantum mechanics, foam, multi-verse, etc.) Some of the science was a bit dumbed down and a few liberties taken to make things make sense (laymen wise) but overall it was done for the better good and to make things make more sense as a whole.

The artwork in the book is absolutely beautiful and the infographics are very well done and help showcase whatever is being discussed.

Anita says

This was an awesome journey that gave me a sense of being a part of a universe aware of itself. The trip goes in a very logical order and the writing is clear and entertaining as well. It has many illustrations. I read this in ebook format on a tablet so that I could zoom in on the images and see them in color. The science is made understandable, or at least as much as is possible when we get down to those very small bits.

Maria says

I must have gone in with the wrong expectations because I was pretty disappointed :/ I love the idea for this book and there were some cool infographics. However, the content leaves a lot to be desired and many of the illustrations were only borderline scientific. I did love the last few pages that list the sizes of a bunch of things from particles to the human egg to galaxies.

Kursad Albayraktaroglu says

This is an amazing book; with an interesting, top-notch scientific commentary and great illustrations. I found it to be a throwback to the hefty, lavishly illustrated science books from the 1950s that I used to borrow from the local American consulate library and read for hours when I was in middle school. Definitely highly recommended to anyone with an interest in science.

While this book is clearly aimed at grownups, the authors should seriously consider a version for a younger audience - such a book would be great for expanding a kid's horizons and get her interested in the science of the very small and very large.

Simon Dobson says

There's nothing in the least pretentious or precious about this book. It's a straightforward tour through over forty orders of magnitude, from universal-scale gravitating structures to quarks and then on down to the Planck length, the theoretically smallest distance. In many ways this resembles a 1980's popular science book for early teens – and given how much I enjoyed those at that age, it's hardly a surprise that I loved this one too.

Carol Wakefield says

Enjoyed very much the 30% or less that I understood but enjoyed even more the 70% or so I didn't understand. It is exciting to read of the areas of study scientists are concerned with. A sense of awe of what is being studied and what might be is studied/discovered is worth the read too.

Cat says

Just found this book at my library and I must say I am impressed! The illustrations were pretty amazing, to say the least. The book seems pretty well written and explains scales of enormous universe shattering dimensions down to the tiniest subatomic realm. Anyone interested in science will enjoy this book. Kudos to Caleb Scharf and Ron Miller!

Tati Dengo says

This is a fun little book to flip through and take your time reading. I feel like it would work much better as an app or an interactive e-book, but this is fine nonetheless. (Maybe in a future iteration?)

The author really loves this subject and you can feel his enthusiasm seeping through the pages.

The text fluctuates from reasonably understandable to a layperson, to I have no idea what is going on because quantum physics and what is even a gluon.

It would've been nice if the book included a glossary, because there were a handful of times where I felt like the author jumped right into a technical term, assuming the reader would be familiar with it. Other times he did do his best to define a term, but the frequency of these clarifications just wasn't consistent throughout the book.

The illustrations give you a lot to think about, because a lot of them are either not visible with our current technology, or they are quite empty for a long time, further underlining just how much empty space there is in the universe.

I had two qualms with the illustrations. First, the elephant (and a couple of others that I honestly can't remember so it probably doesn't matter) were a little too fuzzy around the edges and sometimes I wondered if this was a printing error or not. This wasn't a problem with the pictures of the huge galaxies and the minuscule Planck scale, because it's not like we can naturally currently see those in perfectly crisp photographs, but we do all know what an elephant looks like so... why aren't the edges sharp? And secondly, every person in this book is white, and most are middle-aged males. I would've hoped to see more diversity in a book about the universe.

The book ends with notes from the author, running us through his train of thought for every chapter, as well as including references and resources if one would like to further research the subjects he touches on. I LOVED this section because while reading the book, I kept wondering about his decision-making process. It's not like the author had a magical zoom in his pocket to go back and forth at will and find the best angles to show the illustrator. He designed a gradual progression about an impossibly dense subject yet made it look easy enough to digest, and not impossibly complicated, and kept it interesting despite the wide empty spaces.

I really feel like the scope of all that decision-making would be way easier to appreciate in an app or interactive e-book.
