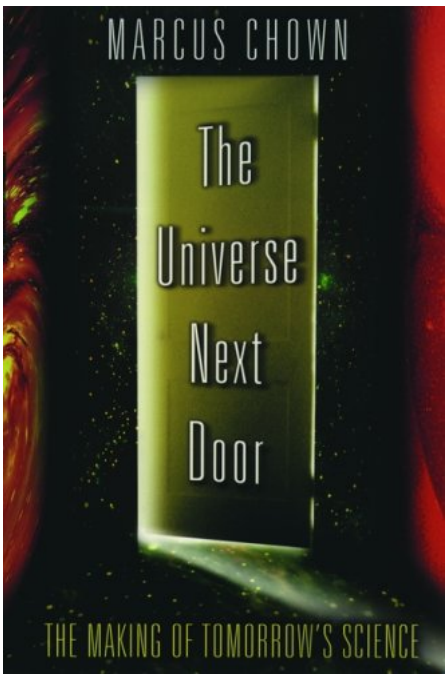

The Universe Next Door: The Making of Tomorrow's Science

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The idea that an atom can be in two places at once defies logic. Yet this is now an established scientific fact. In The Universe Next Door, science writer Marcus Chown examines a dozen mind-bending new ideas that also fly in the face of reason--but that, according to eminent scientists, might just be crazy enough to be true. Could time run backwards? Is there a fifth dimension? Does quantum theory promise immortality? To explore these questions, Chown has interviewed some of the most imaginative and courageous people working at the forefront of science, and he has come away with a smorgasbord of mind-expanding ideas. For instance, Lawrence Schulman at New York's Clarkson University believes there could be regions in our Universe where stars unexplode, eggs unbreak and living things grow younger with every passing second. Max Tegmark, at the University of Pennsylvania, believes there could be an infinity of realities stacked together like the pages of a never-ending book (with an infinite number of versions of you, living out an infinite number of different lives). And David Stevenson of Cal Tech argues that life may exist on worlds drifting in the cold, dark abyss between the stars, worlds without suns to warm them. Indeed, these worlds may be the most common sites for life in the universe.
Was our universe created by super-intelligent beings from another universe? Is there evidence of extraterrestrial life lying right beneath our feet? The Universe Next Door ponders these and many other thought-provoking questions. You may not agree with all the answers but your head will be spinning by the time you reach the last page.

The Universe Next Door: The Making of Tomorrow's Science Details

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Author	:	Marcus Chown
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From Reader Review The Universe Next Door: The Making of Tomorrow's Science for online ebook

Andrew Keppler says

Yes. It's pseudoscience and fringe science.
No. I don't care. It's an interesting read and fun, I just wouldn't take it to be gospel.

Jack Massa says

Interesting and easy-to-read survey of some of the more astounding postulations in recent Physics and Astronomy.

'Easy-to-read' is why I didn't appreciate this book more. Obviously, unless you are a scientist and 'get' the math, you can't really understand the mind-bending theories presented.

But the best science writing uses metaphors and detailed descriptions of experiments to help the non-specialist who is willing to think hard at least *approach* understanding. There's little of this kind of writing here, not much encouragement to think hard, and so not much help in gaining more than a very surface level of knowledge.

An enjoyable and quick read, but I won't remember most of it next month.

Enrique Gato says

Un libro de divulgación de física cuántica, astrofísica y astrobiología poco al uso. La parte regulera es que los conceptos se van repitiendo en muchos de los 12 ensayos, e incluso algún dato va cambiando entre ellos. La buena, que es muy especulativo. Chown muestra hipótesis sobre el funcionamiento del universo bastante heterodoxas, habla mucho de Max Tergmark (que lo tengo pendiente) y se atreve con multiversos matemáticos y nubes de cometas rebosantes de vida congelada, antes viva gracias a un isótopo de aluminio. Interesante.

Phoebe says

If you are not familiar with quantum theory and relativity theory then these essays will certainly seem like science fiction and will be very difficult to take seriously. This is because the background for these theories is not given here. However Chown knows that quantum physics hobbyists such as myself are everywhere, making this kind of book a plausible money spinner. For those familiar with the bizarre world of quantum physics, these theories that Chown describes are some of the more (and less as in multiverses) contentious attempts to address some of the remaining holes in quantum theory, and the ever enticing task of uniting

relativity and quantum theory. The interesting parts for me were in the last section of the book where Chown describes one theory which proposes how there may be millions of "invisible" planets sustaining life in the dark of interstellar space, and another theory showing how life may originally have evolved to bacteria stage, elsewhere in the universe and arrived fully formed on early earth.

Parksy says

Cool book on the new theories in physics - specifically quantum physics.

Immortality in an alternate quantum reality? Black holes that give birth to new universes? Galactic regions where time runs backward? Mere fiction simply cannot keep up with the wild rush of contemporary science. And no writer makes it easier for general readers to come along for the dizzying ride than Chown, cosmology consultant for New Scientist. Whether assessing the latest evidence for comet-borne life or probing the implications of 10-dimensional models for space, Chown frees readers from the technical rigors of theorizing but ceaselessly challenges us to enlarge our imaginative horizons. The galaxy itself cannot contain ideas that open up onto a multiuniverse of cosmic possibilities, including invisible mirror planets and cosmic laboratories for detonating new big bangs. To be sure, Chown ventures far beyond what scientists have actually proved, delving deep into what they only wildly conjecture. But even the wildest of speculations (that, for instance, each atom is a miniature time machine) show us how brilliant scientists grapple with fundamental questions. Many of these theoretical forays will eventually be exposed as fantasies. But others are bound to revolutionize the way scientists--and ordinary humans--view our cosmos and our place in it. For sheer intellectual exhilaration, few books offer more. Bryce Christensen

The idea that an atom can be in two places at once defies logic. Yet this is now an established scientific fact. In The Universe Next Door, science writer Marcus Chown examines a dozen mind-bending new ideas that also fly in the face of reason--but that, according to eminent scientists, might just be crazy enough to be true. Could time run backwards? Is there a fifth dimension? Does quantum theory promise immortality? To explore these questions, Chown has interviewed some of the most imaginative and courageous people working at the forefront of science, and he has come away with a smorgasbord of mind-expanding ideas. For instance, Lawrence Schulman at New York's Clarkson University believes there could be regions in our Universe where stars unexplode, eggs unbreak and living things grow younger with every passing second. Max Tegmark, at the University of Pennsylvania, believes there could be an infinity of realities stacked together like the pages of a never-ending book (with an infinite number of versions of you, living out an infinite number of different lives). And David Stevenson of Cal Tech argues that life may exist on worlds drifting in the cold, dark abyss between the stars, worlds without suns to warm them. Indeed, these worlds may be the most common sites for life in the universe. Was our universe created by super-intelligent beings from another universe? Is there evidence of extraterrestrial life lying right beneath our feet? The Universe Next Door ponders these and many other thought-provoking questions. You may not agree with all the answers but your head will be spinning by the time you reach the last page.

Ronnie Mcdiarmid says

Marcus Chown is one of the best communicators of scientific ideas around

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Sarah says

Feels old already!
Easy to follow and understand quantum physics.
Written in 2002, so I bet things have changed already!

David Krohn says

Occam's razor need not apply.

Jordan Clark says

The Universe Next Door contains lots of interesting concepts from theoretical physics – mainly the more exotic implications of theories such as general relativity and quantum mechanics. It explores a number of ideas that have captivated both professional scientists and curious laymen alike since Einstein's annus mirabilis.

The author, Marcus Chown, discusses many ideas that have been popularised by the likes of Brian Greene, Stephen Hawking, Roger Penrose and Max Tegmark, to name but a few.

The book capitalises on concepts such as the Heisenberg uncertainty principle of quantum mechanics, the extra dimensions postulated by string theory, and some of the more extreme predictions of the mathematics of general relativity. It then endeavours to explain in a non-technical language the mind-bending implications of these theories, and does a good job of it too.

I would highly recommend this book to a newcomer to physics, or to someone who has never really thought in detail about the idea of the multiverse/parallel universes etc. However, readers who have a scientific background, or even just hobbyists who have read all the popular science books or watched a lot of documentaries on space, may find that this book is lacking in any original stimulating ideas, and may want to try something else.

Overall, a good book considering its scope and audience.

Shad says

Excellent exploratory science writing that celebrates the creativity and wonder of the universe. Well written and with an ear towards layman like myself.

Dan says

Fascinating material...although I get the feeling that when theoretical physicists know that their predictions

won't be testable in their lifetimes (if ever), that they just start making up crazy stuff in order to get attention. A fun read regardless, and it definitely gets the imagination going on all kinds of bizarre tangents. Note: I filed this under non-fiction, but I'm not really sure that is completely appropriate.

Alyson Walton says

As an avid reader of this author's popular science books, I was enthralled! I'm new to theoretical science and found this book to be a great introduction. Well worth reading ?

Bharath says

Very interesting book with a number of different theories about the universe. Definitely recommended!
