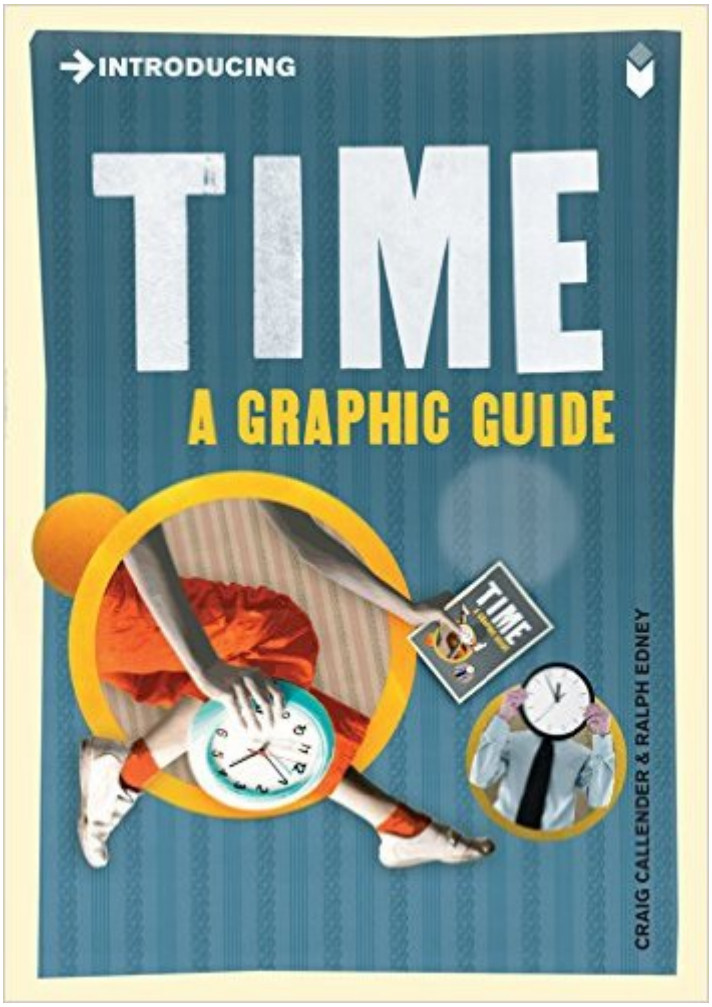
Introducing Time: A Graphic Guide



Synopsis

Introducing Time traces the history of time from Augustine’s suggestion that there is no time, to the flowing time of Newton, the conventional time of PoincarÃ©, the static time of Einstein, and then back, full circle, to the idea that there is no time in quantum gravity.

Book Information

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Customer Reviews

The nature of time is a difficult subject. Fortunately, Craig Callender (dig the name!) has made the subject (or at least the most relevant views and issues) easier to understand in this superb little book. He begins by surveying what may be considered different types of time, including our psychological experience of temporal succession, measured time, and biological time. He then covers the difference between an absolutist (i.e., temporal succession is independent of any change in the universe) and a relational view (i.e., time just *is* change in the universe), as well as the discussion over whether time really has a direction, or whether or not reality is a space-time ’block’ whose moments are individuated by an entity’s location on the space-time block. In doing so, Callender surveys various arguments for or against these views, and he discusses even more intuitively odd scenarios such as backward causation and time travel. The last third or so of the book deals with time and its relation to physical laws, such as the entropy law. In treating the subject, Callender introduces the reader to all sorts of odd theoretical entities like wormholes, lightcones, and mobius twists in time. All in all, this is a great book for anyone interested in thinking

a bit about what, exactly, time *is*. It is especially useful as a precursor to more academic works like MacBeath and LePoidevin’s anthology, The Philosophy of Time.

Introducing Time is one of the Introducing series most popular selections. For an Introducing book it is also one of the most detailed, thought provoking, wide-ranging and heady science volumes around. If you want to know anything about time then Introducing Time does just that and then some more, but be prepared for lots of difficult diverse thinking.In most cases the first 100 pages will be more than enough for most people and the Introducing series could easily have made this book 200 pages long with that material alone but instead has condensed the opening philosophical thought on time into a shorter amount and goes straight into Einstein, relativity, lots on time travel and a great finish on entropy. Most of these topics are actually books in their own right such as Introducing Relativity and Introducing Einstein so Introducing Time really is good value for money.If you are thinking about starting a collection of science titles from the Introducing series then you would do well to get this book or add it to your collection for two reasons. First of all, Introducing Time includes the best explanation of Boltzmann’s statistical mechanics and entropy I have read anywhere. It could be worth it for that alone. You may not expect entropy to have such an impact on the topic of time and that can be a very nice surprise when reading that it does. The second is really just the breath of the coverage that time gets in this book. Even those who have read Stephen Hawking’s `A brief history of time’ will come away from this one with a whole lot more than thought possible.Core material:ClocksPsychological timeTime scenariosRelationalism and absolute timeRelative and non-relativeTenseless and tensedDimensionsMotion and changeTime flowsGalilean relativityEinstein’s relativitySimultaneityLightconesLogicTime travelImpossibilityCausal loopsPhysics and time travelSpacetime curvatureGodelTaub-NUT-Misner spacetimeCosmic string theoryWormholesMobius twistBranching timeSpace and limitsGeroch’s theoremBig bangClosed and open timeThe direction of timeThermodynamicsEntropyStatistical mechanicsLoschmidt paradoxUniverse’s statistical developmentBoundary conditionsTemporal double-standardTime reversalQuantum gravityWheeler-DeWittInexistence of timeThis is far from an easy book but time is a detailed topic and should get the full treatment if it should be treated at all. For this reason Introducing Time is quite simply one of the most important and revealing books on something that people take for granted. It’s the kind of book you come away with a mind full of awe. If Introducing Time doesn’t change your worldview then nothing will.

Introducing Time starts off with Aristotle’s view on time then goes on to talk about many

philosophical and scientific views of time. It includes Newton’s absolute time, Einstein’s special and general relativity as they relate to time, including Godel Universes, and also Boltzman’s statistical mechanics based view of time. All in all a lot of information in such a short book.

Great introduction to the concept of "Time". This book, with it’s comic book style illustrations and easy to digest content, helps one begin to fathom the many complexities and paradoxes inherent in our current understanding of "time".

Gulp. Since this book sets out to explain concepts that originated with Einstein, it was perhaps predictable that this book was going to be a challenge. It was.The comic strip approach helps initially - and the graphics are amazing. But ultimately, it added to my frustration as subliminally I was feeling that I wasn’t able to understand a kids comic. Not the best feeling.I managed to gain a little more knowledge about the topic - so kudos to the author for that. But I can’t say that I got to the end feeling that I’d enjoyed the book. It was too much like hard work for that.

It’s not that the back is not good quality....it just isn’t good for ME. It was way too technical and I found myself unable to follow the concepts. But when it comes right down to it, I may not have been that interested, either. The graphics were great and what grabbed my attention in the first in place. So I recommend the book for those who really want to learn more about time, literally.

I found the way the book dealt with time done well, though the graphics didn’t really add much. It was a bit of a distraction. If you want to know some of the theories regarding the arrow of time, is time real and can you travel back in time, it’s worth a read.

Too many scattershot ideas and graphics, not enough organized well delivered information. Mishmashes modern physics wiith ancient philosophy, common sense, cluttered graphics in a way that does NOT simplify or elucidate the issues. It’s the sort of thing, you’d have to stop and wiki every other page. ("Stephen Hawking. Sundials. Is time real?" plus cartoons puts a lot of concepts on the table which people have probaby already glanced at, but gives no more than a glance and no clarification.) However, it gives good jumpoff poins to then google. then really read, even a bit. Not one star. but, no three either.

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