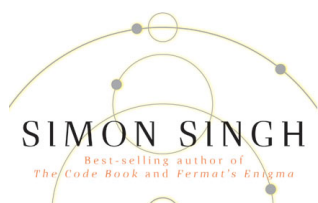


Big Bang

By Simon Singh
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B I G
B A N G

The Origin of the Universe



Introduction

Albert Einstein once said: "The most incomprehensible thing about the universe is that it is comprehensible." Simon Singh believes geniuses like Einstein are not the only people able to grasp the physics that underlies the universe: so can we all. As well as explaining what the Big Bang Theory actually is, the book addresses why cosmologists believe that it is an accurate description of the origin of the universe. It also tells of the brilliant and eccentric scientists who struggled to understand creation and fought against the establishment idea of an eternal and unchanging cosmos.

Singh, renowned for making difficult ideas less difficult, is the perfect guide on this journey. With a narrative peppered with anecdotes and personal histories of those who have struggled to understand creation, Simon Singh has written the story of the most important theory ever.

Discussion Questions

1. Why was the Sun-centered model of the Solar System initially rejected and then finally accepted?
2. The author often cites examples of calculations that are grossly wrong, but then says that the important thing is that someone managed to find a way to calculate them. Why is it important to perform these calculations even if we still don't get the right answer?
3. How did technological change during the Renaissance aid the new physicists?
4. Why did many scientists claim that Hubble's original data failed to show that the universe was expanding?
5. Lemaître was a deeply religious man. Do you think that this influenced his theories about the universe?
6. Einstein once called the Cosmological Constant his biggest blunder. Why?
7. How did the development of the telescope change the course of astronomy?
8. Although science is a human activity, it tries to be objective. In what ways can subjectivity influence scientific conclusions?
9. In the last few pages, the author discusses the problem of creation and how scientists are attempting to look beyond the Big Bang. How do the theories discussed get around the problem?
10. Edward Pickering employed women at the Harvard College Observatory. Was he a liberal thinker or a pragmatist?

About the author

Simon Singh received his Ph.D. in physics from the University of Cambridge. A former BBC producer, he directed the Emmy-nominated Nova documentary film, *The Proof*, and wrote the bestselling book **Fermat's Enigma** on the same subject. He is also the author of **The Code Book**. He lives in London and lectures all over the world.