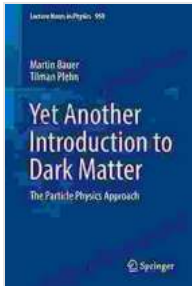


# Yet Another Introduction To Dark Matter



## Yet Another Introduction to Dark Matter: The Particle Physics Approach (Lecture Notes in Physics Book 959)

★★★★☆ 4 out of 5

Language : English  
File size : 35483 KB  
Text-to-Speech : Enabled  
Enhanced typesetting : Enabled  
Print length : 302 pages



## A Comprehensive Guide To The Mysterious Substance That Constitutes 85% Of The Universe

Dark matter is one of the most mysterious and fascinating substances in the universe. It makes up 85% of all matter in the universe, but we still don't know what it is.

This book provides a comprehensive to dark matter, covering its history, properties, and potential implications for our understanding of the universe.

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1. What Is Dark Matter?
2. The History Of Dark Matter
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## **What Is Dark Matter?**

Dark matter is a type of matter that does not emit or reflect any electromagnetic radiation. This means that we cannot see it directly, and we can only infer its existence from its gravitational effects on other objects.

Dark matter is thought to make up about 85% of all matter in the universe. The remaining 15% is made up of ordinary matter, which is the type of matter that we are familiar with and that makes up everything that we can see around us.

## **The History Of Dark Matter**

The concept of dark matter was first proposed in the 1930s by the Swiss astronomer Fritz Zwicky. Zwicky was studying the Coma Cluster of galaxies, and he noticed that the galaxies were moving faster than expected based on their visible mass.

Zwicky proposed that there must be some unseen mass in the Coma Cluster that was providing the additional gravitational pull. This unseen mass was later dubbed "dark matter".

## **The Properties Of Dark Matter**

The properties of dark matter are still not fully understood, but we know that it is:

- Invisible
- Cold
- Collisionless

**Invisible:** Dark matter does not emit or reflect any electromagnetic radiation, which means that we cannot see it directly.

**Cold:** Dark matter is thought to be cold, which means that it is moving at speeds much slower than the speed of light.

**Collisionless:** Dark matter particles are thought to be collisionless, which means that they do not interact with each other or with ordinary matter.

## **The Implications Of Dark Matter**

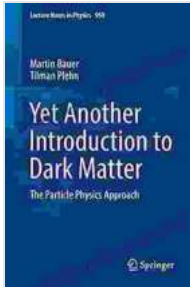
The existence of dark matter has profound implications for our understanding of the universe. Dark matter is thought to play a major role in the formation of galaxies and the structure of the universe on the largest scales.

Dark matter could also help to explain some of the most mysterious phenomena in the universe, such as the acceleration of the expansion of the universe and the existence of black holes.

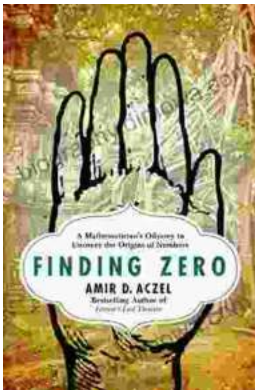
Dark matter is one of the most mysterious and fascinating substances in the universe. We still don't know what it is, but it is clear that it plays a major role in the structure and evolution of the universe.

This book provides a comprehensive to dark matter, covering its history, properties, and potential implications for our understanding of the universe. It is an essential read for anyone who wants to learn more about this fascinating and enigmatic substance.

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