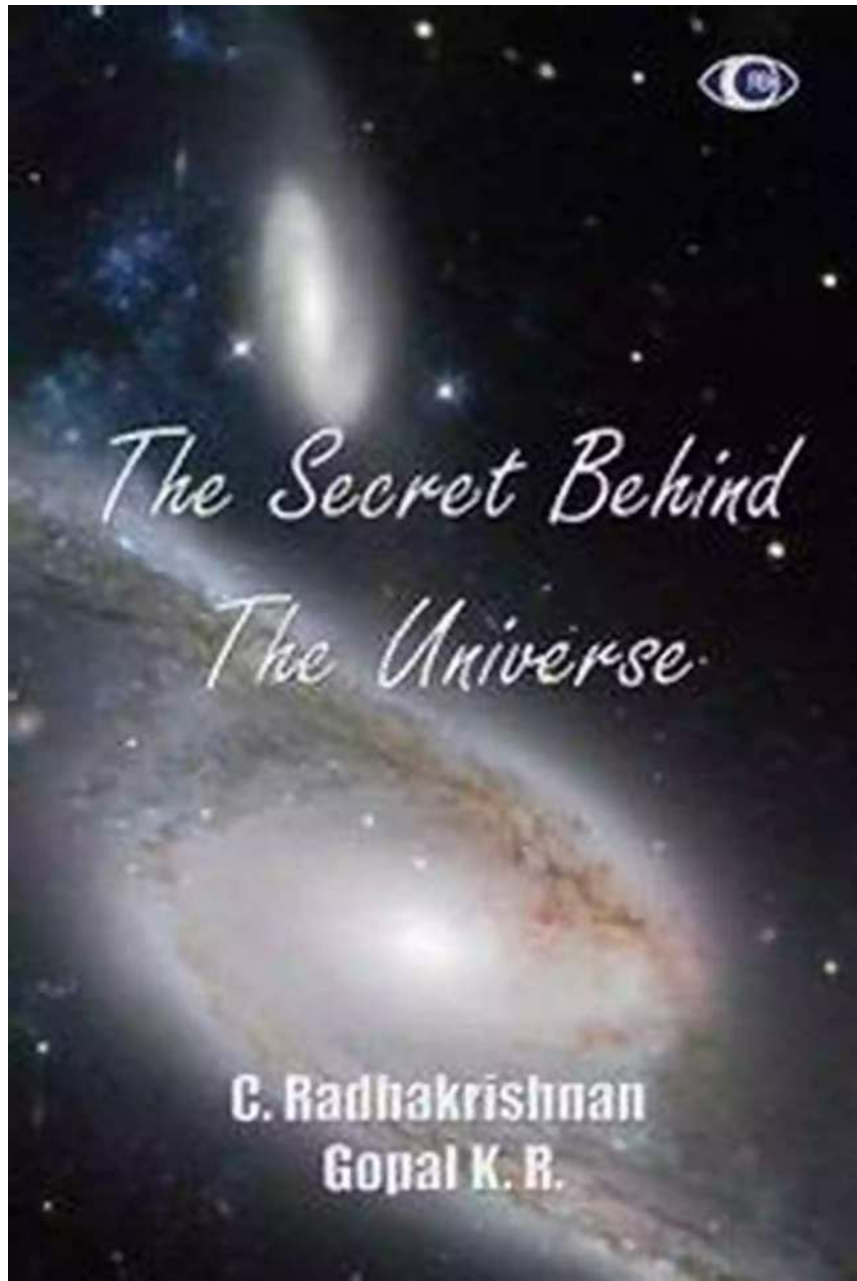


The Secret Behind The Universe



The universe has always been a topic of fascination for humans. Throughout history, countless philosophers, scientists, and scholars have attempted to unravel its mysteries. From the early Greek philosophers to the most advanced scientists of today, the quest to understand the universe has been relentless.

Exploring the Cosmic Enigma

What is the universe? How did it come into existence? Why does it behave the way it does? These questions have perplexed humanity for centuries. While our knowledge of the cosmos has expanded significantly over time, many of its secrets have remained hidden.



The Secret Behind the Universe: Cosmology in Vedanta: The Physics Correlation

by C Radhakrishnan(Kindle Edition)

★★★★☆ 4.2 out of 5

Language : English
File size : 3150 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Word Wise : Enabled
Print length : 81 pages
Lending : Enabled



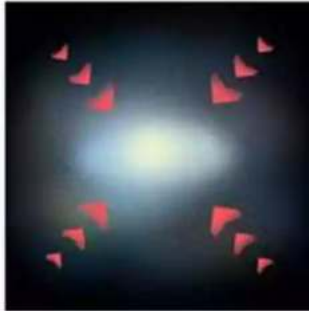
However, recent breakthroughs in scientific research have shed new light on the secret behind the universe. Scientists now believe that the universe originated from the Big Bang, a cataclysmic event that occurred approximately 13.8 billion years ago. This explosive beginning set the stage for the formation of galaxies, stars, and the building blocks of life as we know it.

The Growth of Bulges in Spiral Galaxies Three evolutionary scenarios

Rapid Collapse



1. Primordial hydrogen cloud.



2. Cloud collapses under gravity.

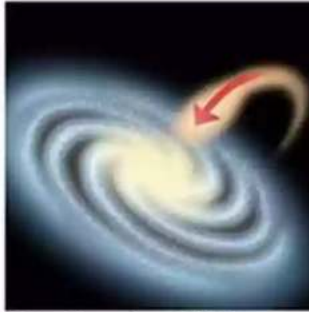


3. Large bulge of ancient stars dominates galaxy.

Environmental Effects



1. Disk galaxy and companion.



2. Smaller galaxy falls into disk galaxy.



3. Bulge inflates with addition of young stars and gas.

Internal Evolution



1. Disk galaxy forms around small bulge.



2. Disk perturbations form a bar-like structure which shovels fresh gas into the center.



3. As bulge grows with new stars the bar is disrupted and dissipates.

The Fundamentals of the Universe

One of the most captivating aspects of the universe is its underlying structure. Through the study of physics and mathematics, scientists have uncovered fundamental laws that govern its behavior. These laws, such as gravity and electromagnetism, enable us to understand and predict the interactions of celestial objects.

Additionally, the concept of spacetime has revolutionized our understanding of the universe. According to Einstein's theory of general relativity, spacetime is a four-dimensional fabric that can be bent and curved by energy and mass. This groundbreaking theory has provided profound insights into the nature of gravity and the dynamics of the cosmos.

The Expanding Universe and Dark Matter

One of the most astonishing discoveries in modern cosmology is the expansion of the universe. By observing the redshift of distant galaxies, astronomers have concluded that the universe is continually expanding. This revelation has led to the development of the Big Bang theory and has reshaped our understanding of the universe's origins.

Yet, there is another secret that puzzles scientists: dark matter. Dark matter is a mysterious substance that does not interact with light or other forms of electromagnetic radiation. Its existence is inferred from its gravitational effects on visible matter within galaxies. Although its exact nature remains elusive, it is believed to account for a significant portion of the mass in the universe.

01 Perimeter
Explorations

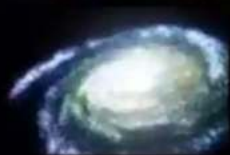
The Mystery of Dark Matter

*In-Class DVD and Teacher's Guide
First Module in the 'Perimeter Explorations' Series*

"...imaginative, artistic and scientifically
valid. I highly recommend it to high
school teachers."

- Vera Rubin

Professor, Department of Terrestrial Magnetism,
Carnegie Institution of Washington
Discoverer of Dark Matter in individual galaxies



About The Mystery of Dark Matter

Over the last few decades, physicists discovered that around ninety percent of every galaxy in the universe is made of an unseen substance called 'dark matter'. This module, tied to physics curricula, explores how dark matter was discovered, why it remains a mystery, and how finding out what it is made of is currently one of the hottest topics in science.

Over 100 international teachers and researchers contributed to the module, which has been classroom tested with over 1000 students. The full kit provides educators with flexibility and choice. Teachers are encouraged to choose those elements that best suit their needs and modify the worksheets as they see fit (using editable electronic copies found on the DVD).

The full kit includes

- DVD - With state of the art animation and indexed chapters to skip/start as required
- Suggested Ways to Use the Module - Possible lesson outlines
- Curriculum Links - Commonly taught topics related to dark matter
- Dark Matter in a Nutshell - Summary of the video
- Student Activities - Hands-on demonstrations and student worksheets
- Supplementary Information - More details and mathematical appendices
- Dark Side of the Universe - Introductory article about dark matter

About Perimeter Institute

Canada's Perimeter Institute for Theoretical Physics is an independent non-profit, scientific research and educational outreach organization where international scientists cluster to push the limits of our understanding of physical laws and calculate new ideas about the very essence of space, time, matter and information. The award-winning research centre provides a multidisciplinary environment to foster research in areas of Cosmology, Particle Physics, Quantum Foundations, Quantum Gravity, Quantum Information and Superstring Theory. The Institute, located in Waterloo, Ontario, also provides a wide array of educational outreach activities for students, teachers and members of the general public across the country and beyond in order to share the joy of scientific research, discovery and innovation.

Learn more at the special AAAS workshop
Teaching Physics to High School Students
New Perimeter Explorations Classroom Video

with
Damian Pope Senior Manager of Scientific Outreach, PI
Max Tegmark Associate Professor of Physics, MIT
John Maniack Director of External Relations and Outreach, PI

Saturday, February 16th
10:30 to 11:30 am
Hynes Convention Centre
Third Level, Room 303

The Multiverse Hypothesis

Are we the only universe or are there alternate realities beyond our perception?

The concept of the multiverse proposes that there may be multiple universes coexisting alongside our own. This mind-boggling hypothesis suggests that our universe is just one of many, each with its own set of physical laws and conditions.

The multiverse theory has gained significant attention in recent years, captivating both scientists and science fiction enthusiasts alike. While its existence is yet to be proven, the idea of a multiverse opens up endless possibilities and challenges our understanding of the cosmos.

The Future of Cosmic Discovery

As our technology and knowledge continue to advance, we are entering an exciting era of cosmic exploration. From the powerful telescopes that probe far into space to the groundbreaking experiments conducted at particle accelerators, scientists are pushing the boundaries of our understanding.

Unraveling the secrets behind the universe is an ongoing endeavor that requires collaboration across disciplines and a relentless pursuit of knowledge. With each new discovery, we inch closer to comprehending the intricate workings of the cosmos and gaining deeper insights into our place within it.

The universe is a vast and mysterious place, holding secrets that continue to captivate and challenge us. Through scientific research and exploration, we are gradually unraveling its enigmas, bringing us closer to understanding the secret behind the universe. As we embark on this cosmic journey, the possibilities for discovery and enlightenment are boundless.



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This is the e-book of the famous work 'The Secret Behind the Universe' by the same author.

Exploring the secrets of the Universe as far as physics can go, and even beyond.. Along with its Vedantic integration.

This book is divided into two sections. The first section is a work in physics which presents an in-depth exploration of Avyakta - the hidden metaphysical reality behind the apparent universe - through scientific study. A condensed version of this part has been published in the Prespacetime Journal Vol 7 Issue 16 on 08/01/2017, titled "Avyakta - The Fabric of Space" in which this concept is explored to complement the Standard Model and explain gravitation. This section of the book attempts to explore the role of avyakta behind various phenomena like matter waves, energy in the vacuum state, spiral arms of galaxies, dark matter, Higgs boson and virtual particles which pop out of nowhere, big bang and cosmic inflation and the anti-particle.

(Prespacetime Journal (ISSN: 2153-8301), QuantumDream, Inc., P.O. Box 267, Stony Brook, NY 11790-0267, USA; is a physics journal which focuses on the origin, nature and mechanism of space-time and its possible connection to a prespacetime; and models and experimental results on elemental particles, fundamental forces including gravity and related topics.)

The second section of the book presents in-depth study of cosmology as outlined in ancient Indian Philosophy, researching from the Bhagavad Gita and the

Upanishads. The discussions shed light on many previously unknown levels and aspects. Since God cannot be considered in physics due to lack of experimental evidence, this section is provided as a separate part!

The first book of its kind, it brings the diverse fields of Science and Philosophy into face-to-face contact. It is a thrilling journey for all types of readers interested in science or Vedanta.



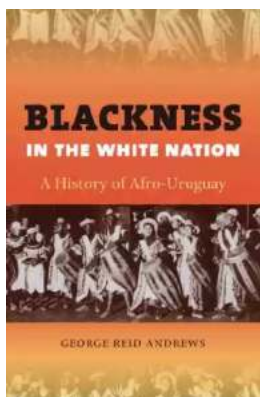
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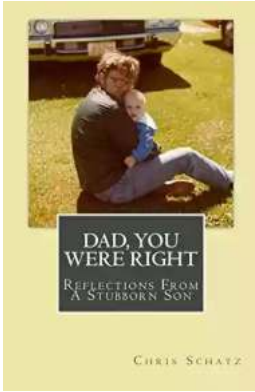
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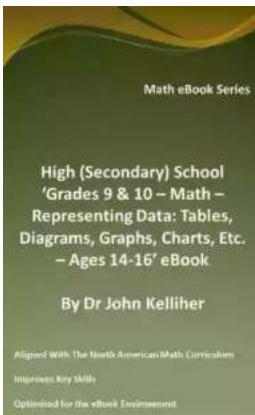
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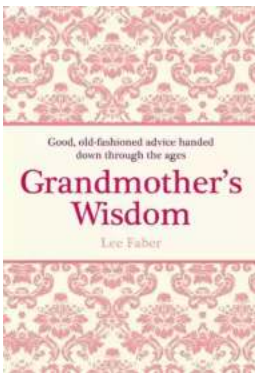
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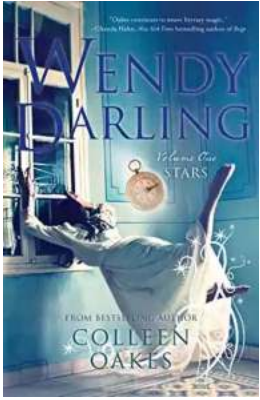
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