



Einstein's General Theory of Relativity: With Modern Applications in Cosmology

By Øyvind Grøn, Sigbjørn Hervik

Download now

Read Online ➔

Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik

This book introduces the general theory of relativity and includes applications to cosmology. The book provides a thorough introduction to tensor calculus and curved manifolds. After the necessary mathematical tools are introduced, the authors offer a thorough presentation of the theory of relativity. Also included are some advanced topics not previously covered by textbooks, including Kaluza-Klein theory, Israel's formalism and branes. Anisotropic cosmological models are also included. The book contains a large number of new exercises and examples, each with separate headings. The reader will benefit from an updated introduction to general relativity including the most recent developments in cosmology.

↓ [Download Einstein's General Theory of Relativity: With ...pdf](#)

📖 [Read Online Einstein's General Theory of Relativity: Wi ...pdf](#)

Einstein's General Theory of Relativity: With Modern Applications in Cosmology

By Øyvind Grøn, Sigbjørn Hervik

Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik

This book introduces the general theory of relativity and includes applications to cosmology. The book provides a thorough introduction to tensor calculus and curved manifolds. After the necessary mathematical tools are introduced, the authors offer a thorough presentation of the theory of relativity. Also included are some advanced topics not previously covered by textbooks, including Kaluza-Klein theory, Israel's formalism and branes. Anisotropic cosmological models are also included. The book contains a large number of new exercises and examples, each with separate headings. The reader will benefit from an updated introduction to general relativity including the most recent developments in cosmology.

Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik **Bibliography**

- Sales Rank: #1592078 in Books
- Published on: 2007-05-04
- Original language: English
- Number of items: 1
- Dimensions: 9.21" h x 1.19" w x 6.14" l, 2.10 pounds
- Binding: Hardcover
- 538 pages

 [Download Einstein's General Theory of Relativity: With ...pdf](#)

 [Read Online Einstein's General Theory of Relativity: Wi ...pdf](#)

Download and Read Free Online Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik

Editorial Review

Review

From the reviews:

"A sophisticated treatment of general relativity with a considerable number of applications to cosmology. ... The book may be read in several different ways, depending on the interests of readers. A rich source of material; college libraries should have it on their shelves. Summing Up: Highly recommended. Upper-division undergraduates through professionals." (K. L. Schick, CHOICE, Vol. v4 (3), November, 2007)

"This book is a carefully prepared overview about all essential aspects of relativity. Its 5 parts give the standard way to present the material Differently from other textbooks, the present authors emphasize much more concrete problems and examples The book contains a very large number of formulas, partially due to the fact, that many statements are given both in the old index-notation as well as in the modern index-free notation; I think this is helpful for the readers." (Hans-Jürgen Schmidt, Zentralblatt MATH, Vol. 1126 (3), 2008)

"Even if you already have a sizable collection of books on general relativity, or if you are looking for a good modern book to teach a course from, the text by Grøn and Hervik is ... a valuable addition to your collection." (David H. Delphenich, Mathematical Reviews, Issue 2008 i)

From the Back Cover

Many of us have experienced the same; fallen and broken something. Yet supposedly, gravity is the weakest of the fundamental forces; it is claimed to be 10-15 times weaker than electromagnetism. Still, every one of us has more or less had a personal relationship with gravity.

Einstein's General Theory of Relativity: With Modern Applications in Cosmology by Øyvind Grøn and Sigbjørn Hervik is about gravity and the concept of gravity as Albert Einstein saw it- curved spaces, four-dimensional manifolds and geodesics. The book starts with the 1st principles of relativity and an introduction to Einstein's field equations. Next up are the three classical tests of the relativity theory and an introduction to black holes.

The book contains several topics not found in other textbooks, such as Kaluza-Klein theory, anisotropic models of the universe, and new developments involving brane cosmology.

Grøn and Hervik have included a part in the book called "Advanced Topics." These topics range from the very edge of research to older, accepted ideas. In particular, the last two chapters deal with Einstein gravity in five dimensions, which has been a hot topic of research in recent years.

On one final note, cosmology has also proven to be a very important testing arena for the general theory of relativity and a large part of the book is therefore devoted to this subject.

About the Author

Both authors are researchers in general relativity with particular emphasis on cosmology. They have earned the following honors: Illustrert Vitenskaps research prize (1988), The King's Gold Medal (1990), 2nd prize, Smith-Knight Rayleigh-Knight prizes, Cambridge University (2003), and Research Prize of Oslo College of Engineering (2004).

Users Review

From reader reviews:

Roxie Spencer:

Reading a publication can be one of a lot of exercise that everyone in the world loves. Do you like reading book so. There are a lot of reasons why people enjoyed. First reading a e-book will give you a lot of new data. When you read a guide you will get new information since book is one of numerous ways to share the information or perhaps their idea. Second, looking at a book will make you actually more imaginative. When you reading a book especially fiction book the author will bring one to imagine the story how the personas do it anything. Third, you may share your knowledge to other people. When you read this Einstein's General Theory of Relativity: With Modern Applications in Cosmology, you may tells your family, friends in addition to soon about yours publication. Your knowledge can inspire average, make them reading a publication.

Joyce McDonald:

You are able to spend your free time to read this book this book. This Einstein's General Theory of Relativity: With Modern Applications in Cosmology is simple to develop you can read it in the park, in the beach, train in addition to soon. If you did not have got much space to bring the printed book, you can buy the actual e-book. It is make you much easier to read it. You can save often the book in your smart phone. So there are a lot of benefits that you will get when one buys this book.

Gary Tawney:

Beside this kind of Einstein's General Theory of Relativity: With Modern Applications in Cosmology in your phone, it may give you a way to get closer to the new knowledge or details. The information and the knowledge you will got here is fresh from the oven so don't end up being worry if you feel like an aged people live in narrow town. It is good thing to have Einstein's General Theory of Relativity: With Modern Applications in Cosmology because this book offers for your requirements readable information. Do you occasionally have book but you would not get what it's interesting features of. Oh come on, that wil happen if you have this with your hand. The Enjoyable agreement here cannot be questionable, including treasuring beautiful island. Techniques you still want to miss this? Find this book and read it from currently!

David Conte:

On this era which is the greater man or who has ability in doing something more are more valuable than other. Do you want to become considered one of it? It is just simple strategy to have that. What you need to do is just spending your time little but quite enough to enjoy a look at some books. One of several books in

the top list in your reading list is usually Einstein's General Theory of Relativity: With Modern Applications in Cosmology. This book which is qualified as The Hungry Mountains can get you closer in turning out to be precious person. By looking right up and review this guide you can get many advantages.

**Download and Read Online Einstein's General Theory of Relativity:
With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn
Hervik #N7GLOWXJPRF**

Read Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik for online ebook

Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik books to read online.

Online Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik ebook PDF download

Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik Doc

Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik Mobipocket

Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik EPub

N7GLOWXJPRF: Einstein's General Theory of Relativity: With Modern Applications in Cosmology By Øyvind Grøn, Sigbjørn Hervik