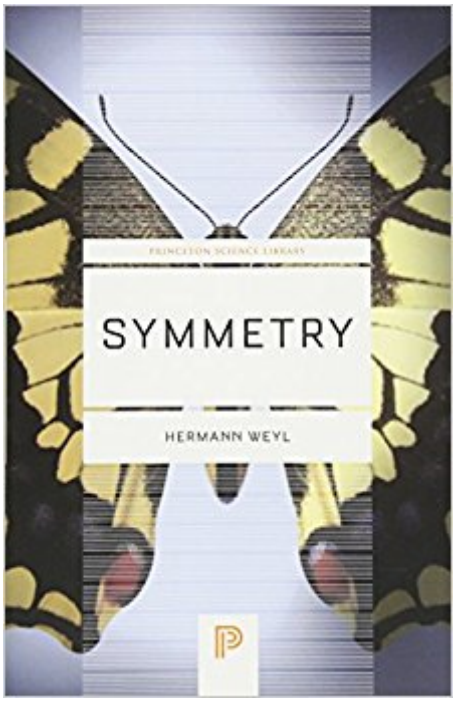
Ebook Directory
the best source of ebook

The book was found

Symmetry (Princeton Science Library)



PDF
Adobe
DOWNLOAD EBOOK

Synopsis

Symmetry is a classic study of symmetry in mathematics, the sciences, nature, and art from one of the twentieth century's greatest mathematicians. Hermann Weyl explores the concept of symmetry beginning with the idea that it represents a harmony of proportions, and gradually departs to examine its more abstract varieties and manifestationsÃ¢â ¬â ¢as bilateral, translatory, rotational, ornamental, and crystallographic. Weyl investigates the general abstract mathematical idea underlying all these special forms, using a wealth of illustrations as support. Symmetry is a work of seminal relevance that explores the great variety of applications and importance of symmetry.

Book Information

Series: Princeton Science Library

Paperback: 176 pages

Publisher: Princeton University Press; Reprint edition (October 4, 2016)

Language: English

ISBN-10: 0691173257

ISBN-13: 978-0691173252

Product Dimensions: 5.4 x 0.6 x 8.4 inches

Shipping Weight: 8 ounces (View shipping rates and policies)

Average Customer Review: 4.3 out of 5 stars 10 customer reviews

Best Sellers Rank: #497,203 in Books (See Top 100 in Books) #70 inÃ Â Books > Science & Math > Physics > Nuclear Physics > Particle Physics #86 inÃ Â Books > Science & Math > Physics > Applied #153 inÃ Â Books > Textbooks > Humanities > Philosophy > Aesthetics

Customer Reviews

"This short book on a vast subject is the work of a master. With a few sure and authoritative words [Weyl] gives us the heart of the matter. There is no book . . . quite like this one on the subject of symmetry and I doubt if any book will be written in the future that will not in some way lean upon this one. . . . [I]t contains so much besides mathematics that it can still be read with profit and enjoyed by someone who has not advanced beyond long division."--John Tyler Bonner, Science"Dr. Weyl presents a masterful and fascinating survey of the applications of the principle of symmetry in sculpture, painting, architecture, ornament, and design; its manifestations in organic and inorganic nature; and its philosophical and mathematical significance."--Scientific American"Weyl offers deep insight into [the concept of symmetry], its foundations in group theory, its applications in physics, chemistry, and biology, and its role in art."--Manfred Eigen and Ruthild Winkler in Laws of the

Game"Vivid and picturesque. . . . [Weyl is] an outstanding thinker."--Wolfgang Yourgrau, Philosophy and Phenomenological Research

Symmetry is one of the ideas by which man through the ages has tried to comprehend and create order, beauty, and perfection. Starting from the concept that symmetry equals harmony of proportions, this book gradually develops first the geometric concept of symmetry in its several forms as bilateral, translatory, rotational, ornamental, and crystallographic symmetry, and finally rises to the general abstract mathematical idea underlying all these special forms. --This text refers to an out of print or unavailable edition of this title.

Very well written introductory book to symmetry-group theory notionsconcise and thought provoking lacking some modern notions and strong mathematical deductionsCan be read from high scool studentsan easy pace book ideal for a first contact with the subject

This is a tough read for an amateur, but still worth the effort. Fractal Geometry is cutting edge stuff that exposes the connections between nature and math. Well written.

Why 3 stars? It has nothing to do with the context of the book but the price.One may legitimately give 5 stars to any of Hermann Weyl books-- as he was not only a grand mathematician but also a prominent philosopher and physicist who with his open-mindedness and creativity contributed much to each faculty in the 20th century. However one may wonder why his books written long ago cannot be offered by as free e-books (in Kindle edition). Of course if you are a researcher, the Kindle edition lacks the page number you need in your reference. In any case, there is no such a short-come in the FREE PDF versions of Weyl books that you can easily find on internet and download, they include:__The Continuum__Space, Time, Matter__Symmetry__Philosophy of Mathematics__Mind and Nature__The Theory of Groups and Quantum Mechanics

Hermann Weyl was a mathematical giant of the twentieth century, and nowhere was his influence more profoundly felt than in his work on the applications of group theory to the physical sciences.This book, compiled from a lecture series Professor Weyl gave just prior to his retirement from the Institute for Advanced Studies at Princeton, provides a nice introduction to these ideas, but also waxes philosophical at times which makes it an interesting read even for the knowledgeable student.This book is filled with greyscale pictures which provide examples of precise types of

symmetry in both art and nature. In many ways, it is these pictures which make the book so suitable for beginners in the discipline of symmetry.Group theory is the mathematical language of symmetry, and the first chapter of this book discusses bilateral symmetry in depth. This is the simplest and more familiar of all symmetry types as it is present in our own bodies.Professor Weyl also spends a good amount of time discussing the inherent bilateral symmetry of the universe and the laws of physics. This is an inadvertent source of entertainment as a few years later it was discovered that contrary to all the evidence and philosophical inclinations in this direction , it is actually not so. Weak nuclear interactions lack bilateral symmetry.Oddly, this makes the universe even more like our own bodies which also appear to have bilateral symmetry until you really get inside of them.The second chapter covers translational and rotational symmetries and provides many examples both from art and nature.The third chapter discusses ornamental symmetries which are essentially two dimensional lattice symmetries.The final chapter introduces crystals and the mathematics of symmetries in general.There are also a couple of appendices which provide some additional mathematical details on a couple of points.This book is widely considered to be a classic, and as I said is chock full of pictures illustrating various types of symmetries in nature, art, and even in mathematics itself.I'd recommend this book to just about anyone with a smidgeon of curiosity. Many of the ideas on the mathematical side lack any appreciable development, and so this book reads a bit like a sightseeing tour, which I'm sure is exactly what Professor Weyl intended.Widely referenced. Excellent reading. Highly recommended.

Weyl, a world renown mathematician, wrote this nice book on symmetry in 1951, just four years before passing away. He introduces the concept of symmetry starting from a discussion of bilateral symmetry which characterizes human beings and moving on to symmetric objects and symbols such as the triquetrum, an old magic symbol which is used in the flags of both Sicily and the Isle of Man. The last part is concerned with the symmetry in crystals and with introductory aspects of algebraic geometry. The book, despite being 60+ years old, can be recommended to every one interested in understanding the meaning of symmetry and how it appears in every day life. A book that also explores the concept of symmetry in the objects that surround us as well as in molecules is Hargittai & Hargittai 'Symmetry through the Eyes of a Chemist'.

Symmetry is about the mathematical underpinnings of symmetry as it appears in nature and art. The book is divided into 4 sections, the first Bilateral Symmetry covers reflection. This lecture goes into biology and art. The next lecture is about rotational symmetry. I was able to follow the math

presented in this lecture but had trouble in the 3rd lecture titled Ornamental Symmetry. Ornamental symmetry is mostly about tilings of the plane. There is a lot of math presented in this lecture. I had to fall back on my rudimentary knowledge or abstract algebra and linear algebra to understand it. My point is that without this knowledge this lecture and the next one The General Idea of Mathematical Symmetry would have been impossible for me to follow. However, I still recommend this book to people who don't have any of the above background. Symmetry covers the concepts behind symmetry well, and it's applications to nature and art can be followed by anyone.

Download to continue reading...

Symmetry Rules: How Science and Nature Are Founded on Symmetry (The Frontiers Collection) Symmetry (Princeton Science Library) The New Science of Strong Materials or Why You Don't Fall through the Floor (Princeton Science Library) Infinity and the Mind: The Science and Philosophy of the Infinite (Princeton Science Library) Princeton Readings in Islamist Thought: Texts and Contexts from al-Banna to Bin Laden (Princeton Studies in Muslim Politics) The Princeton Field Guide to Prehistoric Mammals (Princeton Field Guides) The Princeton Field Guide to Dinosaurs: Second Edition (Princeton Field Guides) The Princeton Field Guide to Dinosaurs (Princeton Field Guides) Why Stock Markets Crash: Critical Events in Complex Financial Systems (Princeton Science Library) Eye and Brain: The Psychology of Seeing, Fifth Edition (Princeton Science Library) QED: The Strange Theory of Light and Matter (Princeton Science Library) Four Colors Suffice: How the Map Problem Was Solved (Princeton Science Library) "e:" The Story of a Number (Princeton Science Library) How to Solve It: A New Aspect of Mathematical Method (Princeton Science Library) The Extravagant Universe: Exploding Stars, Dark Energy, and the Accelerating Cosmos (Princeton Science Library) A Natural History of Shells (Princeton Science Library) Life on a Young Planet: The First Three Billion Years of Evolution on Earth (Princeton Science Library) "T. rex" and the Crater of Doom (Princeton Science Library) Primates and Philosophers: How Morality Evolved (Princeton Science Library) The Long Thaw: How Humans Are Changing the Next 100,000 Years of EarthÃ¢â ¬â„¢s Climate (Princeton Science Library)

Contact Us

DMCA

Privacy

FAQ & Help