Riemann, Topology, and Physics

Michael I. Monastyrsky

Riemann, Topology, and Physics

Michael I. Monastyrsky

Riemann, Topology, and Physics Michael I. Monastyrsky

This significantly expanded second edition of Riemann, Topology, and Physics combines a fascinating account of the life and work of Bernhard Riemann with a lucid discussion of current interaction between topology and physics, The author, a distinguished mathematical physicist, takes into account his own research at the Riemann archives of Göttingen University and developments over the last decade that connect Riemann with numerous significant ideas and methods reflected throughout contemporary mathematics and physics.

Special attention is paid in part one to results on the Riemann–Hilbert problem and, in part two, to discoveries in field theory and condensed matter such as the quantum Hall effect, quasicrystals, membranes with nontrivial topology, "fake" differential structures on 4-dimensional Euclidean space, new invariants of knots and more. In his relatively short lifetime, this great mathematician made outstanding contributions to nearly all branches of mathematics; today Riemann's name appears prominently throughout the literature.

"The book is highly recommendable—for students and scientific workers—not only for the valuable information in it, but also for its spirit: history and higher mathematics are not dry here; they become alive and motivate further studies."—**ZAA**

"This is a new translation of a book first published in English in 1987... Translated from Russian...it consists of two separate but related works. The first is an account of the life and work of Riemann, the second an account of several different topics in physics which are illuminated by the introduction of topological ideas. The discussion of Riemann is even better in the new edition. The mathematical account is richer and various errors have been corrected... The second half has been revised in a similar fashion... It has also been enriched by a new chapter which starts with von Neumann algebras and the work of Vaughn Jones... The book does three things very well: it reminds us of the range and depth of Riemann's interests, which are emblematic of what the author values in mathematical physics; describes some of the many successes of Russian mathematicians and physicists; and it provides a lucid account of some modern work in which topology is genuinely applied. Books like this are vital for the health of mathematics and it is to be hoped that more will be written."---**Mathematical Reviews**

Download and Read Free Online Riemann, Topology, and Physics Michael I. Monastyrsky

---

From reader reviews:

Eric Bass:

The book Riemann, Topology, and Physics make one feel enjoy for your spare time. You can utilize to make your capable considerably more increase. Book can for being your best friend when you getting tension or having big problem together with your subject. If you can make reading through a book Riemann, Topology, and Physics to be your habit, you can get far more advantages, like add your personal capable, increase your knowledge about some or all subjects. You may know everything if you like available and read a reserve Riemann, Topology, and Physics. Kinds of book are a lot of. It means that, science publication or encyclopedia or other people. So , how do you think about this book?

Ann Lemieux:

The book with title Riemann, Topology, and Physics has lot of information that you can understand it. You can get a lot of advantage after read this book. This kind of book exist new knowledge the information that exist in this reserve represented the condition of the world currently. That is important to yo7u to learn how the improvement of the world. This particular book will bring you within new era of the glowbal growth. You can read the e-book in your smart phone, so you can read the idea anywhere you want.

William Burns:

Do you one of the book lovers? If yes, do you ever feeling doubt if you are in the book store? Try and pick one book that you find out the inside because don't judge book by its deal with may doesn't work at this point is difficult job because you are afraid that the inside maybe not as fantastic as in the outside appearance likes. Maybe you answer is usually Riemann, Topology, and Physics why because the amazing cover that make you consider regarding the content will not disappoint a person. The inside or content is definitely fantastic as the outside as well as cover. Your reading sixth sense will directly show you to pick up this book.

Brooks Davis:

Don't be worry when you are afraid that this book will certainly filled the space in your house, you could have it in e-book method, more simple and reachable. This particular Riemann, Topology, and Physics can give you a lot of pals because by you considering this one book you have matter that they don't and make you more like an interesting person. This kind of book can be one of one step for you to get success. This publication offer you information that perhaps your friend doesn't realize, by knowing more than different make you to be great men and women. So , why hesitate? We should have Riemann, Topology, and Physics.

Download and Read Online Riemann, Topology, and Physics Michael I. Monastyrsky #6KDNV3X5G0F

Read Riemann, Topology, and Physics by Michael I. Monastyrsky for online ebook

Riemann, Topology, and Physics by Michael I. Monastyrsky 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 Riemann, Topology, and Physics by Michael I. Monastyrsky books to read online.

Online Riemann, Topology, and Physics by Michael I. Monastyrsky ebook PDF download

Riemann, Topology, and Physics by Michael I. Monastyrsky Doc

Riemann, Topology, and Physics by Michael I. Monastyrsky Mobipocket

Riemann, Topology, and Physics by Michael I. Monastyrsky EPub