

Springer

1st
edition1st ed. 2019, XVIII, 324 p.
17 illus.**Printed book**

Softcover

Printed book

Softcover

ISBN 978-3-030-26894-7

£ 39,99 | CHF 53,50 | 44,99 € |
49,49 € (A) | 48,14 € (D)

Available

Discount group

Standard (0)

Product category

Undergraduate textbook

Series

Undergraduate Lecture Notes in Physics

Physics : Mathematical Methods in Physics

Shapiro, Ilya L., Universidade Federal de Juiz de Fora, Juiz de Fora, Brazil

A Primer in Tensor Analysis and Relativity

- Designed for undergraduate students looking to enter the field of quantum gravity and particle physics
- Fills a gap in the often outdated and overly complicated existing literature
- Includes a plethora of examples and exercises

This undergraduate textbook provides a simple, concise introduction to tensor algebra and analysis, as well as special and general relativity. With a plethora of examples, explanations, and exercises, it forms a well-rounded didactic text that will be useful for any related course. The book is divided into three main parts, all based on lecture notes that have been refined for classroom teaching over the past two decades. Part I provides students with a comprehensive overview of tensors. Part II links the very introductory first part and the relatively advanced third part, demonstrating the important intermediate-level applications of tensor analysis. Part III contains an extended discussion of general relativity, and includes material useful for students interested primarily in quantum field theory and quantum gravity. Tailored to the undergraduate, this textbook offers explanations of technical material not easily found or detailed elsewhere, including an understandable description of Riemann normal coordinates and conformal transformations. Future theoretical and experimental physicists, as well as mathematicians, will thus find it a wonderful first read on the subject.

Order online at [springer.com/booksellers](https://www.springer.com/booksellers)**Springer Nature Customer Service Center GmbH**

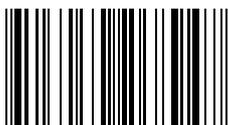
Customer Service

Tiergartenstrasse 15-17

69121 Heidelberg

Germany

T: +49 (0)6221 345-4301

row-booksellers@springernature.com

ISBN 978-3-030-26894-7 / BIC: PHU / SPRINGER NATURE: SCP19013

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.

Part of **SPRINGER NATURE**