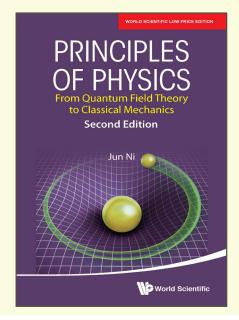




Principles of Physics, 2nd Edition

From Quantum Field Theory to Classical Mechanics



By **Jun Ni**

(Tsinghua University, China)

ISBN 9780000991737

Extent 560pp

Binding Paperback

Year 2024

Price Rs. 1495

ABOUT THE BOOK

This book starts from a set of common basic principles to establish the basic formalisms of all disciplines of fundamental physics, including quantum field theory, quantum mechanics, statistical mechanics, thermodynamics, general relativity, electromagnetism, and classical mechanics. Instead of the traditional pedagogic way, the author arranges the subjects and formalisms in a logical order, i.e. all the formulas are derived from the formulas before them. The formalisms are also kept self-contained. Most mathematical tools are given in the appendices. Although this book covers all the disciplines of fundamental physics, it contains only a single volume because the contents are kept concise and treated as an integrated entity, which is consistent with the motto that simplicity is beauty, unification is beauty, and thus physics is beauty.

This can be used as an advanced textbook for graduate students. It is also suitable for physicists who wish to have an overview of fundamental physics.

READERSHIP

This is suitable for graduate students and physicists who wish to have an overview of fundamental physics.

CONTENTS

- Preface
- Preface to the Second Edition
- Basic Principles
- Quantum Fields
- Quantum Fields in the Riemann Spacetime
- Symmetry Breaking
- Interacting Quantum Fields

- From Quantum Field Theory to Quantum Mechanics
- Electromagnetic Field
- Quantum Mechanics
- Applications of Quantum Mechanics
- Statistical Mechanics
- Applications of Statistical Mechanics
- Relativity Theory
- Appendices:
 - Tensors
 - Functional Formula
 - Gaussian Integrals
 - Grassmann Algebra
 - Euclidean Representation
 - Some Useful Formulas
 - Jacobian
 - Geodesic Equation
- Bibliography
- Index

For orders and enquiries, please contact us:

FEEL

FEELBOOKS PVT. LTD.

www.feelbooks.in

DELHI 4381/4 Ansari Road, Daryaganj, New Delhi 110002 Tel: +91-11-47472630

Pushpendra Kumar Mobile: +91 9015043442 Email: orders@feelbooks.in

BENGALURU C-22, Brigade MM, KR Road, Jayanagar 7th Block, Bengaluru 560070 Tel: +91-80-26762129

Shekar Reddy Mobile: +91 9945234476 Email: bangalore@feelbooks.in

MUMBAI Alok Dube Mobile: +91 9833435804 Email: adube@feelbooks.in

CHENNAI G Srinivasan Mobile: +91 9003047502 Email: gsrinivasan@feelbooks.in

KOLKATA Dhrubajyoti Bhattacharjee Mobile: +91 9836160013 Email: dbhattacharjee@feelbooks.in

HYDERABAD Kundan Kumar. S Mobile: +91 8106726072 Email: kundan@feelbooks.in