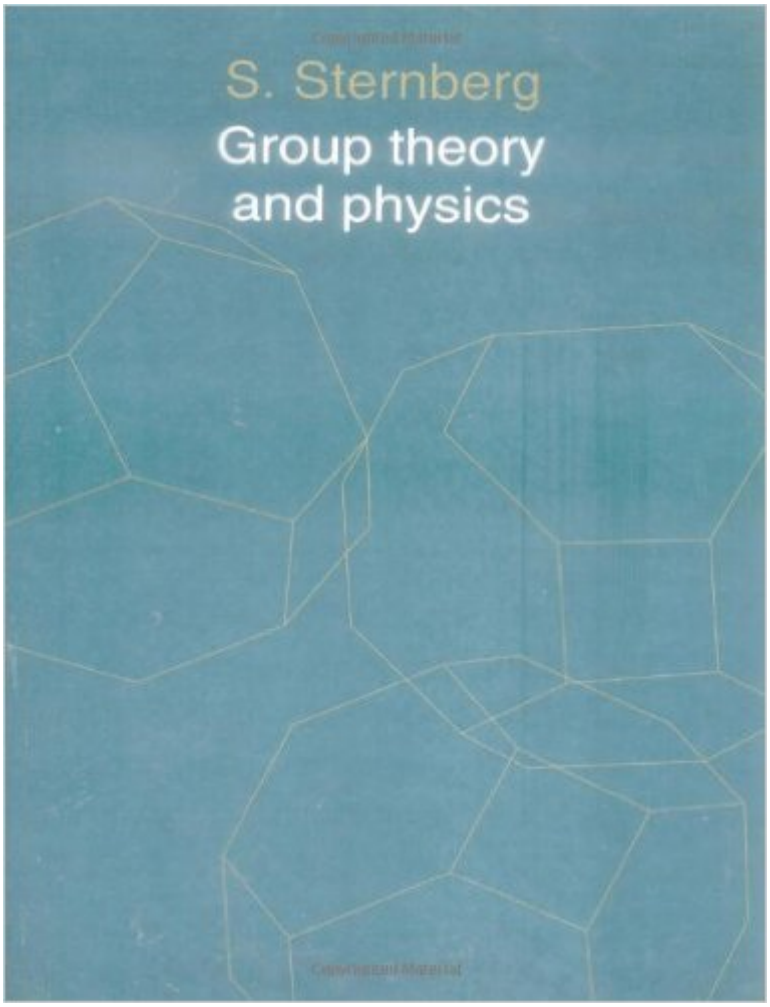
Group Theory And Physics



Synopsis

This book is an introduction to group theory and its application to physics. The author considers the physical applications and develops mathematical theory in a presentation that is unusually cohesive and well-motivated. The book discusses many modern topics including molecular vibrations, homogeneous vector bundles, compact groups and Lie groups, and there is much discussion of the group SU(n) and its representations, which is of great significance in elementary particle physics. The author also considers applications to solid-state physics. This is an essential resource for senior undergraduates and researchers in physics and applied mathematics.

Book Information

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Customer Reviews

This book is an excellent introduction to the use of group theory in physics, especially in crystallography, special relativity and particle physics. Perhaps most importantly, Sternberg includes a highly accessible introduction to representation theory near the beginning of the book. All together, this book is an excellent place to get started in learning to use groups and representations in physics.

Unbeatable introduction to both group theory and stunning applications. Some effort for some calculations, but accompanying prose is a joy.

Not very helpful. The materials are incredibly dense. The book skips a lot of derivations and is very

stingy on explanations.

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