Lie Groups, Lie Algebras, Cohomology and some Applications in Physics (Cambridge Monographs on Mathematical Physics)
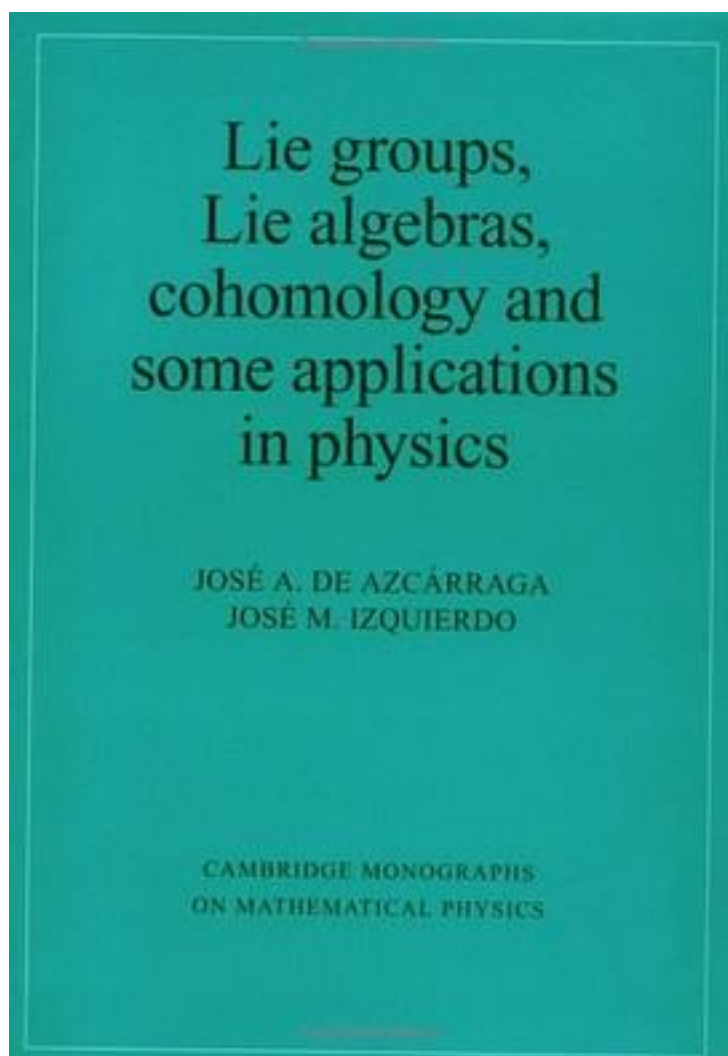

Lie Groups, Lie Algebras, Cohomology and some Applications in Physics (Cambridge Monographs on Mathematical Physics)_下载链接1_

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Now in paperback, this book provides a self-contained introduction to the cohomology theory of Lie groups and algebras and to some of its applications in physics. No previous knowledge of the mathematical theory is assumed beyond some notions of Cartan calculus and differential geometry (which are nevertheless reviewed in the book in detail). The examples, of current interest, are intended to clarify certain mathematical aspects and to show their usefulness in physical problems. The topics treated include the differential geometry of Lie groups, fibre bundles and connections, characteristic classes, index theorems, monopoles, instantons, extensions of Lie groups and algebras, some applications in supersymmetry, Chevalley-Eilenberg approach to Lie algebra cohomology, symplectic cohomology, jet-bundle approach to variational principles in mechanics, Wess-Zumino-Witten terms, infinite Lie algebras, the cohomological descent in mechanics and in gauge theories and anomalies. This book will be of interest to graduate students and researchers in theoretical physics and applied mathematics.

作者介绍:

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