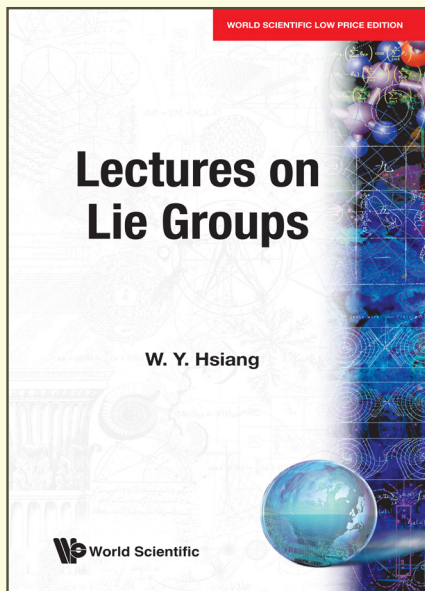


Lectures on Lie Groups



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ABOUT THE BOOK

This invaluable book provides a concise and systematic introduction to the theory of compact connected Lie groups and their representations, as well as a complete presentation of the structure and classification theory. It uses a non-traditional approach and organization. There is a proper balance between, and a natural combination of, the algebraic and geometric aspects of Lie theory, not only in technical proofs but also in conceptual viewpoints. For example, the orbital geometry of adjoint action, is regarded as the geometric organization of the totality of non-commutativity of a given compact connected Lie group, while the maximal tori theorem of É. Cartan and the Weyl reduction of the adjoint action on G to the Weyl group action on a chosen maximal torus are presented as the key results that provide a clear-cut understanding of the orbital geometry.

READERSHIP

Graduate and postgraduates students in mathematics.

CONTENTS

- Linear Groups and Linear Representations
- Lie Groups and Lie Algebras
- Orbital Geometry of the Adjoint Action
- Coxeter Groups, Weyl Reduction and Weyl Formulas
- Structural Theory of Compact Lie Algebras
- Classification Theory of Compact Lie Algebras and Compact Connected Lie Groups