



Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics)

By Jean-Pierre Serre

Download now

Read Online ➔

Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre

The main general theorems on Lie Algebras are covered, roughly the content of Bourbaki's Chapter I. I have added some results on free Lie algebras, which are useful, both for Lie's theory itself (Campbell-Hausdorff formula) and for applications to pro-Lie groups. of time prevented me from including the more precise theory of Lie semisimple Lie algebras (roots, weights, etc.); but, at least, I have given, as a last Chapter, the typical case of a free Lie algebra. This part has been written with the help of F. Raggi and J. Tate. I want to thank them, and also Sue Golan, who did the typing for both parts. Jean-Pierre Serre Harvard, Fall 1964

Chapter I. Lie Algebras: Definition and Examples Let L be a commutative ring with unit element, and let A be a L -module, then A is said to be a Lie algebra if there is given a L -bilinear map $A \times A \rightarrow A$ (i.e., a L -homomorphism $A \otimes L \rightarrow A$). As usual we may define left, right and two-sided ideals and therefore quotients.

Definition 1. A Lie algebra over L is an algebra with the following properties: 1). The map $A \otimes L \rightarrow A$ admits a factorization $A \otimes L \rightarrow A \otimes L \rightarrow A$ i.e., if we denote the image of (x, y) under this map by $[x, y]$ then the condition becomes for all $x \in A$, $[x, x] = 0$, $([x, y], z) + (y, [x, z]) + ([z, x], y) = 0$ (Jacobi's identity) The condition 1) implies $[x, 1] = -[1, x]$

 [Download Lie Algebras and Lie Groups: 1964 Lectures given a ...pdf](#)

 [Read Online Lie Algebras and Lie Groups: 1964 Lectures given ...pdf](#)

Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics)

By Jean-Pierre Serre

Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre

The main general theorems on Lie Algebras are covered, roughly the content of Bourbaki's Chapter I. I have added some results on free Lie algebras, which are useful, both for Lie's theory itself (Campbell-Hausdorff formula) and for applications to pro-Lie groups. Time prevented me from including the more precise theory of Lie semisimple Lie algebras (roots, weights, etc.); but, at least, I have given, as a last Chapter, the typical case of $\mathfrak{sl}(n, \mathbb{C})$. This part has been written with the help of F. Raggi and J. Tate. I want to thank them, and also Sue Golan, who did the typing for both parts.

Jean-Pierre Serre Harvard, Fall 1964 Chapter I. Lie Algebras: Definition and Examples Let L be a commutative ring with unit element, and let A be a L -module, then A is said to be a Lie algebra if there is given a L -bilinear map $A \times A \rightarrow A$ (i.e., a L -homomorphism $A \otimes A \rightarrow A$). As usual we may define left, right and two-sided ideals and therefore quotients. Definition 1. A Lie algebra over L is an algebra with the following properties: 1). The map $A \otimes A \rightarrow A$ admits a factorization $A \otimes A \rightarrow A \otimes A \rightarrow A$ i.e., if we denote the image of (x, y) under this map by $[x, y]$ then the condition becomes for all $x, y \in A$: $[x, x] = 0$ 2). $([x, y], z) + (y, [x, z]) + (z, [x, y]) = 0$ (Jacobi's identity) The condition 1) implies $[x, 1] = -[1, x]$

Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre Bibliography

- Rank: #2915753 in Books
- Brand: Brand: Springer
- Published on: 2005-10-18
- Original language: English
- Number of items: 1
- Dimensions: 9.61" h x .42" w x 6.69" l, .60 pounds
- Binding: Paperback
- 176 pages

 [Download Lie Algebras and Lie Groups: 1964 Lectures given a ...pdf](#)

 [Read Online Lie Algebras and Lie Groups: 1964 Lectures given ...pdf](#)

Download and Read Free Online Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre

Editorial Review

Users Review

From reader reviews:

Trevor Wright:

This Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) are reliable for you who want to certainly be a successful person, why. The key reason why of this Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) can be on the list of great books you must have is actually giving you more than just simple reading food but feed an individual with information that probably will shock your before knowledge. This book will be handy, you can bring it almost everywhere and whenever your conditions both in e-book and printed versions. Beside that this Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) forcing you to have an enormous of experience like rich vocabulary, giving you tryout of critical thinking that we understand it useful in your day pastime. So , let's have it and enjoy reading.

Maria Green:

Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) can be one of your starter books that are good idea. We all recommend that straight away because this publication has good vocabulary which could increase your knowledge in words, easy to understand, bit entertaining however delivering the information. The writer giving his/her effort to put every word into enjoyment arrangement in writing Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) nevertheless doesn't forget the main stage, giving the reader the hottest and also based confirm resource data that maybe you can be one of it. This great information can easily drawn you into brand new stage of crucial contemplating.

Stacia Cobb:

Is it an individual who having spare time in that case spend it whole day by watching television programs or just lying on the bed? Do you need something totally new? This Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) can be the solution, oh how comes? The new book you know. You are consequently out of date, spending your extra time by reading in this fresh era is common not a geek activity. So what these publications have than the others?

Alex Tipton:

Do you like reading a book? Confuse to looking for your favorite book? Or your book ended up being rare?

Why so many issue for the book? But any people feel that they enjoy regarding reading. Some people likes looking at, not only science book and also novel and Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) as well as others sources were given knowledge for you. After you know how the fantastic a book, you feel wish to read more and more. Science e-book was created for teacher or students especially. Those ebooks are helping them to bring their knowledge. In various other case, beside science e-book, any other book likes Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) to make your spare time more colorful. Many types of book like here.

Download and Read Online Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre #AZLMIEQG7F2

Read Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre for online ebook

Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre books to read online.

Online Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre ebook PDF download

Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre Doc

Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre Mobipocket

Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre EPub

AZLMIEQG7F2: Lie Algebras and Lie Groups: 1964 Lectures given at Harvard University (Lecture Notes in Mathematics) By Jean-Pierre Serre