Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics)

By Shun-jen Cheng, Weiqiang Wang

Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang

This book gives a systematic account of the structure and representation theory of finite-dimensional complex Lie superalgebras of classical type and serves as a good introduction to representation theory of Lie superalgebras. Several folklore results are rigorously proved (and occasionally corrected in detail), sometimes with new proofs. Three important dualities are presented in the book, with the unifying theme of determining irreducible characters of Lie superalgebras. In order of increasing sophistication, they are Schur duality, Howe duality, and super duality. The combinatorics of symmetric functions is developed as needed in connections to Harish-Chandra homomorphism as well as irreducible characters for Lie superalgebras. Schur-Sergeev duality for the queer Lie superalgebra is presented from scratch with complete detail. Howe duality for Lie superalgebras is presented in book form for the first time. Super duality is a new approach developed in the past few years toward understanding the Bernstein-Gelfand-Gelfand category of modules for classical Lie superalgebras. Super duality relates the representation theory of classical Lie superalgebras directly to the representation theory of classical Lie algebras and thus gives a solution to the irreducible character problem of Lie superalgebras via the Kazhdan-Lusztig polynomials of classical Lie algebras.

Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics)

By Shun-jen Cheng, Weiqiang Wang

Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang

This book gives a systematic account of the structure and representation theory of finite-dimensional complex Lie superalgebras of classical type and serves as a good introduction to representation theory of Lie superalgebras. Several folklore results are rigorously proved (and occasionally corrected in detail), sometimes with new proofs. Three important dualities are presented in the book, with the unifying theme of determining irreducible characters of Lie superalgebras. In order of increasing sophistication, they are Schur duality, Howe duality, and super duality. The combinatorics of symmetric functions is developed as needed in connections to Harish-Chandra homomorphism as well as irreducible characters for Lie superalgebras. Schur-Sergeev duality for the queer Lie superalgebra is presented from scratch with complete detail. Howe duality for Lie superalgebras is presented in book form for the first time. Super duality is a new approach developed in the past few years toward understanding the Bernstein-Gelfand-Gelfand category of modules for classical Lie superalgebras. Super duality relates the representation theory of classical Lie superalgebras directly to the representation theory of classical Lie algebras and thus gives a solution to the irreducible character problem of Lie superalgebras via the Kazhdan-Lusztig polynomials of classical Lie algebras.

Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang Bibliography

- Sales Rank: #2854681 in Books
- Published on: 2012-12-14
- Original language: English
- Dimensions: 10.00" h x 7.00" w x .75" l, .0 pounds
- Binding: Hardcover
- 302 pages

⬇ **Download** Dualities and Representations of Lie Superalgebras ...pdf

📄 **Read Online** Dualities and Representations of Lie Superalgebr ...pdf

Editorial Review

Users Review

From reader reviews:

Mamie Wilson:

Within other case, little folks like to read book Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics). You can choose the best book if you want reading a book. So long as we know about how is important a book Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics). You can add know-how and of course you can around the world by way of a book. Absolutely right, mainly because from book you can learn everything! From your country right up until foreign or abroad you will find yourself known. About simple thing until wonderful thing it is possible to know that. In this era, we could open a book or maybe searching by internet device. It is called e-book. You need to use it when you feel bored to go to the library. Let's examine.

Archie Williams:

Book is written, printed, or descriptive for everything. You can realize everything you want by a guide. Book has a different type. As it is known to us that book is important thing to bring us around the world. Alongside that you can your reading expertise was fluently. A book Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) will make you to be smarter. You can feel far more confidence if you can know about almost everything. But some of you think which open or reading a new book make you bored. It is far from make you fun. Why they are often thought like that? Have you in search of best book or ideal book with you?

Daniel Campbell:

The book Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) can give more knowledge and information about everything you want. Why then must we leave the good thing like a book Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics)? Some of you have a different opinion about reserve. But one aim that will book can give many info for us. It is absolutely right. Right now, try to closer with the book. Knowledge or info that you take for that, it is possible to give for each other; it is possible to share all of these. Book Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) has simple shape however, you know: it has great and massive function for you. You can search the enormous world by available and read a guide. So it is very wonderful.

Lucille Daulton:

Do you have something that you prefer such as book? The book lovers usually prefer to pick book like

comic, quick story and the biggest the first is novel. Now, why not attempting Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) that give your pleasure preference will be satisfied through reading this book. Reading practice all over the world can be said as the opportunity for people to know world much better then how they react when it comes to the world. It can't be stated constantly that reading habit only for the geeky particular person but for all of you who wants to become success person. So , for all of you who want to start reading through as your good habit, you could pick Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) become your own personal starter.

Download and Read Online Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang #BG3S469U85C

Read Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang for online ebook

Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang 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 Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang books to read online.

Online Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang ebook PDF download

Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang Doc

Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang Mobipocket

Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang EPub

BG3S469U85C: Dualities and Representations of Lie Superalgebras (Graduate Studies in Mathematics) By Shun-jen Cheng, Weiqiang Wang