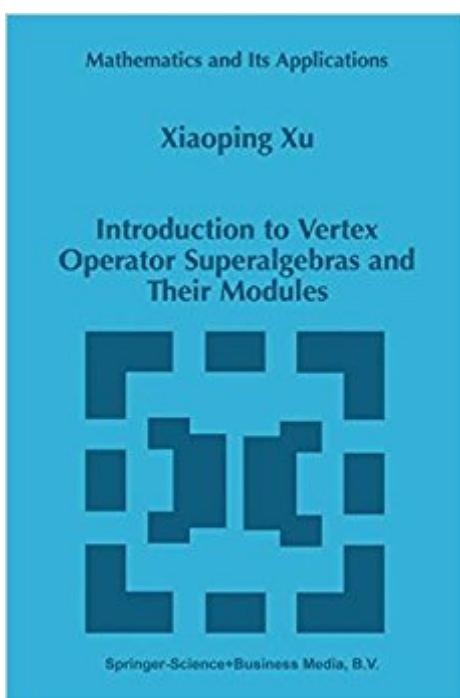


The book was found

# Introduction To Vertex Operator Superalgebras And Their Modules (Mathematics And Its Applications)



## Synopsis

Vertex algebra was introduced by Boreherds, and the slightly revised notion "vertex operator algebra" was formulated by Frenkel, Lepowsky and Meurman, in order to solve the problem of the moonshine representation of the Monster group - the largest sporadic group. On the one hand, vertex operator algebras can be viewed as extensions of certain infinite-dimensional Lie algebras such as affine Lie algebras and the Virasoro algebra. On the other hand, they are natural one-variable generalizations of commutative associative algebras with an identity element. In a certain sense, Lie algebras and commutative associative algebras are reconciled in vertex operator algebras. Moreover, some other algebraic structures, such as integral linear lattices, Jordan algebras and noncommutative associative algebras, also appear as subalgebraic structures of vertex operator algebras. The axioms of vertex operator algebra have geometric interpretations in terms of Riemann spheres with punctures. The trace functions of a certain component of vertex operators enjoy the modular invariant properties. Vertex operator algebras appeared in physics as the fundamental algebraic structures of conformal field theory, which plays an important role in string theory and statistical mechanics. Moreover, conformal field theory reveals an important mathematical property, the so called "mirror symmetry" among Calabi-Yau manifolds. The general correspondence between vertex operator algebras and Calabi-Yau manifolds still remains mysterious. Ever since the first book on vertex operator algebras by Frenkel, Lepowsky and Meurman was published in 1988, there has been a rapid development in vertex operator superalgebras, which are slight generalizations of vertex operator algebras.

## Book Information

Series: Mathematics and Its Applications (Book 456)

Hardcover: 360 pages

Publisher: Springer; 1998 edition (September 30, 1998)

Language: English

ISBN-10: 0792352424

ISBN-13: 978-0792352426

Product Dimensions: 6.1 x 0.9 x 9.2 inches

Shipping Weight: 1.6 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #830,857 in Books (See Top 100 in Books) #141 in [Books > Science & Math > Mathematics > Geometry & Topology > Algebraic Geometry](#) #163 in [Books > Science](#)

& Math > Mathematics > Pure Mathematics > Algebra > Abstract #325 in  $\hat{A}$  Books > Science & Math > Mathematics > Pure Mathematics > Algebra > Linear

## Customer Reviews

'... well-written, with many improvements of known results and existing proofs. The researchers and the graduate students will use this book both as a graduate textbook and as a useful reference...'

Zentralblatt MATH, 929 (2000)

[Download to continue reading...](#)

Introduction to Vertex Operator Superalgebras and Their Modules (Mathematics and Its Applications) The Wonders of the Colorado Desert (Southern California), Vol. 1 of 2: Its Rivers and Its Mountains, Its Canyons and Its Springs, Its Life and Its ... Journey Made Down the Overflow of the Colo Recent Advances in Operator Theory and Operator Algebras Small Time Operator: How to Start Your Own Business, Keep Your Books, Pay Your Taxes, and Stay Out of Trouble (Small Time Operator: How to Start Your ... Keep Yourbooks, Pay Your Taxes, & Stay Ou) Water Operator Certification Study Guide: A Guide to Preparing for Water Treatment and Distribution Operator Certification Exams Theory of Operator Algebras I (Operator Algebras and Non-Commutative Geometry V) Differential Equations and Their Applications: An Introduction to Applied Mathematics (Texts in Applied Mathematics) (v. 11) Symbolism, Its Origins and Its Consequences (Art, Literature and Music in Symbolism, Its Origins and Its) Introduction to Mathematical Logic, Sixth Edition (Discrete Mathematics and Its Applications) Introduction to Mathematical Logic, Fourth Edition (Discrete Mathematics and Its Applications) An Introduction to Differential Equations and Their Applications (Dover Books on Mathematics) Nolte's The Human Brain: An Introduction to its Functional Anatomy With STUDENT CONSULT Online Access, 6e (Human Brain: An Introduction to Its Functional Anatomy (Nolt) Psychiatric Interviewing: The Art of Understanding: A Practical Guide for Psychiatrists, Psychologists, Counselors, Social Workers, Nurses, and Other ... Professionals, with online video modules, 3e D-Modules and Spherical Representations. (MN-39) (Princeton Legacy Library) Paraprofessional in Home Health and Long-Term Care: Training Modules for Working with Older Adults Glencoe Physical iScience Modules: Electricity and Magnetism, Grade 8, Student Edition (GLEN SCI: ELECTRICITY/MAGNETIS) Rediscovering Northwest Denver: Its History, Its People, Its Landmarks Hood's Texas Brigade, Its Marches, Its Battles, Its Achievements America's Great Circus Parade: Its Roots, Its Revival, Its Revelry Macroeconomics in Modules

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)