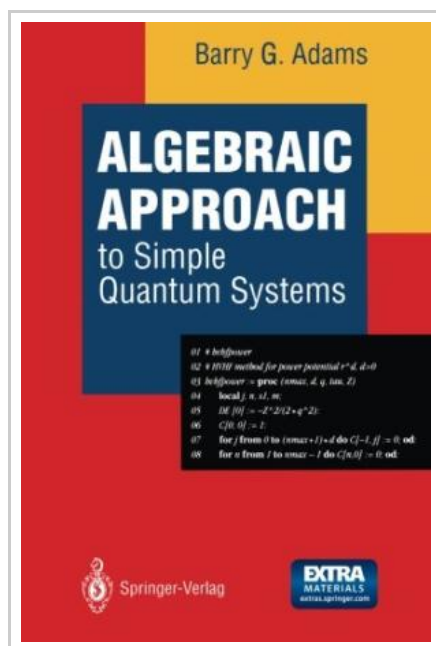




Algebraic Approach to Simple Quantum Systems

By Adams, Barry G.

Book Condition: New. Publisher/Verlag: Springer, Berlin | With Applications to Perturbation Theory | This book provides an introduction to the use of algebraic methods and symbolic computation for simple quantum systems with applications to large order perturbation theory. It is the first book to integrate Lie algebras, algebraic perturbation theory and symbolic computation in a form suitable for students and researchers in theoretical and computational chemistry and is conveniently divided into two parts. The first part, Chapters 1 to 6, provides a pedagogical introduction to the important Lie algebras $so(3)$, $so(2,1)$, $so(4)$ and $so(4,2)$ needed for the study of simple quantum systems such as the D-dimensional hydrogen atom and harmonic oscillator. This material is suitable for advanced undergraduate and beginning graduate students. Of particular importance is the use of $so(2,1)$ in Chapter 4 as a spectrum generating algebra for several important systems such as the non-relativistic hydrogen atom and the relativistic Klein-Gordon and Dirac equations. This approach provides an interesting and important alternative to the usual textbook approach using series solutions of differential equations. | 1 General Discussion of Lie Algebras.- 2 Commutator Gymnastics.- 3 Angular Momentum Theory and $so(3)$.- 4 Representations and Realizations of $so(2,1)$.- 5 Representations and...



READ ONLINE
[6.86 MB]

Reviews

This written publication is wonderful. It really is loaded with knowledge and wisdom You will not really feel monotony at at any time of your time (that's what catalogues are for relating to if you ask me).

-- **Desmond Becker**

Absolutely essential go through publication. I am quite late in start reading this one, but better then never. You will not feel monotony at at any time of the time (that's what catalogues are for regarding if you ask me).

-- **Ambrose Thompson II**

Other PDFs



Would It Kill You to Stop Doing That?

Book Condition: New. Publisher/Verlag: Little, Brown Book Group | A Modern Guide to Manners | A laugh-out-loud guide to modern manners by acclaimed humorist, author, and Vanity Fair columnist Henry Alford. | A few years ago, humorist and journalist Henry Alford found...



Violet Rose and the Surprise Party

Book Condition: New. Publisher/Verlag: Nosy Crow | With activities, 3D press-out models and over 175 stickers! Plus free games and printables online! | When busy rabbit, Violet Rose, discovers that her friend Lily has a birthday coming up, she and her buddies...



Magnificat in D Major, Bwv 243 Study Score Latin Edition

Petrucci Library Press. Paperback. Book Condition: New. Paperback. 70 pages. Dimensions: 9.8in. x 7.2in. x 0.3in. Bach composed the first version of this piece in 1723 using the key of E-flat major for the Christmas Vespers in Leipzig which contained several Christmas texts....



Read Write Inc. Phonics: Orange Set 4 Storybook 7 Come on, Margo!

Oxford University Press, United Kingdom, 2016. Paperback. Book Condition: New. Tim Archbold (illustrator). 180 x 100 mm. Language: N/A. Brand New Book. These engaging Storybooks provide structured practice for children learning to read the Read Write Inc. Set 1 and 2 sounds....



TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (2-4 years old) in small classes (3)(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment. Paperback. Pub Date :2005-09-01 Publisher: Chinese children before making Reading: All books are the Youth Pre-employment Training software download generated pictures...



The Clever Detective Boxed Set (a Fairy Tale Romance): Stories 1, 2 and 3

Createspace, United States, 2012. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.After six years as a private investigator, Stacey Alexander has the strangest day of her life when she falls down...