

Important Titles in High Energy Physics, Nuclear Physics & Cosmology

AT THE LEADING EDGE

The ATLAS and CMS LHC Experiments

edited by **Dan Green**
(Fermi National Accelerator Laboratory, USA)



Too often descriptions of detectors focus on the “what” and not the “why”. This volume aims to elucidate how the requirements of the physics at the Large Hadron Collider (LHC) define the detector environment. In turn, the detector choices are made to adopt to that environment. The goal of LHC physics is to explore the mechanism for electroweak symmetry breaking. Because of the minuscule cross-sections which need to be explored, 0.1 fb, the LHC needs to provide 100 fb⁻¹/yr, or an instantaneous luminosity of 1034 / (cm² sec). With a bunch crossing interval of 25 nsec, well matched to detector speeds, there will be 25 events occupying each bunch crossing.

Thus the physics requires fast, finely segmented, low noise and radiation resistant detectors which provide redundant measurements of the rarely produced electrons and muons. To achieve those goals, new ground was broken in constructing the A Toroidal LHC Apparatus (ATLAS) and Compact Muon Solenoid (CMS) detectors in the vertex detectors, tracking systems, calorimetry, strong magnets, muon systems, front end electronics, trigger systems, and in the data acquisition methods used.

Readership: Physicists and graduates in particle physics.

500pp (approx.) Winter 2009
978-981-4277-61-7 US\$120 £90

World Scientific Series in 20th Century Physics – Vol. 40

MURRAY GELL-MANN

Selected Papers

edited by **Harald Fritzsch** (University of Munich, Germany)

Murray Gell-Mann is one of the leading physicists in the world. He was awarded the Nobel Prize in Physics in 1969 for his work on the SU(3) symmetry. His list of publications, albeit relatively short, is highly impressive — he has written mainly



papers, which have become landmarks in physics. In 1953, Gell-Mann introduced the strangeness quantum number. In 1954, he proposed, together with F Low, the idea of the renormalization group. In 1958, Gell-Mann wrote, together with R Feynman, an important paper on the V-A theory of weak interactions. In 1961, Gell-Mann published his ideas on the SU(3) symmetry. In 1964, he proposed the quark model for hadrons. In 1971, Gell-Mann, together with H Fritzsch, proposed the color quantum number; and in 1972, the theory of QCD. These major publications of Gell-Mann are collected in this volume, thus providing physicists with easy access to the important publications of Gell-Mann.

Contents: The Garden of Live Flowers; Strangeness; Quantum Electrodynamics at Small Distances; Theory of the Fermi Interaction; The Eightfold Way: A Theory of Strong Interaction Symmetry; Symmetries of Baryons and Mesons; A Schematic Model of Baryons and Mesons; Current Topics in Particle Physics; Quarks: Developments in the Theory of Hadrons; Current Algebra: Quarks and What Else?; Particle Theory from S-Matrix to Quarks; Time Symmetry and Asymmetry in Quantum Mechanics and Quantum Cosmology; Progress in Elementary Particle Theory, 1950–1964; Nature Conformable to Herself; Quarks, Color and QCD; Effective Complexity; and other papers.

Readership: Researchers in high energy physics and theoretical physics.

300pp (approx.) Winter 2009
978-981-283-684-7 US\$95 £71
978-981-4261-62-3 (pbk) US\$48 £36

HIGHLIGHTS

ON THE PULSAR

by **B B Kadomsev** (formerly of Russian Academy of Sciences) & foreword by **A Nomerotsky**

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MODERN ATOMIC AND NUCLEAR PHYSICS (Revised Edition)

by **Fujia Yang** (Fudan University, China & Nottingham University, UK) & **Joseph H Hamilton** (Vanderbilt University, USA)

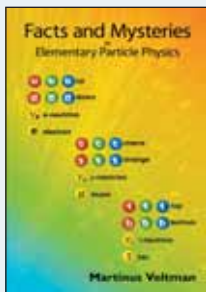
Pg 6

THE INVERTED BOWL

Introductory Accounts of the Universe and Its Life

by **George H A Cole** (University of Hull, UK)

Pg 8



FACTS AND MYSTERIES IN ELEMENTARY PARTICLE PHYSICS

by **Martinus J G Veltman** (University of Michigan, Ann Arbor, USA & NIKHEF, The Netherlands)

Bestseller

"Veltman seamlessly combines historical and thematic descriptions of particle physics, an approach that allows the reader to appreciate how experiment and theory interrelate ... I found the book to be immensely entertaining, and I recommend it highly

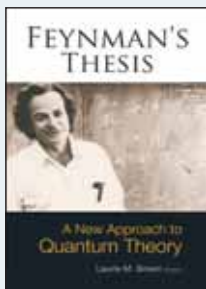
to anyone looking for insight into the nature of elementary particle physics."

American Scientist

This book provides a comprehensive overview of modern particle physics. The laws that govern particle physics are put into action in the world of accelerators, colliders and detectors found at institutions such as CERN and Fermilab. Real world and theory meet using Feynman diagrams to solve the problems of infinities and deduce the need for the Higgs boson.

348pp
978-981-238-148-4 US\$61 £45
978-981-238-149-1(pbk) US\$27 £17

May 2003



FEYNMAN'S THESIS — A NEW APPROACH TO QUANTUM THEORY

edited by **Laurie M Brown** (Northwestern University, USA)

Bestseller

"Historians and physicists alike will enjoy this easy-to-read little book ... The thesis itself is a masterpiece of clear exposition ... it is written in Feynman's uniquely chatty style, and reminiscent of the famous Feynman lectures. It is a delight to read and is likely to offer an insight, even to non-physicists, into both

physics and the workings of Feynman's mind. I would not hesitate to recommend the book to anyone — working physicists, historians, philosophers and even 'curious fellows' who would like to 'peak over the shoulder' of one of the 20th century's great physicists at work."

CERN Courier

144pp
978-981-256-366-8 US\$37 £22
978-981-256-380-4(pbk) US\$18 £10

Aug 2005



DID TIME BEGIN? WILL TIME END?

Maybe the Big Bang Never Occurred

by **Paul H Frampton** (University of North Carolina at Chapel Hill, USA)

Although everyone is familiar with the concept of time in everyday life and has probably given thought to the question of how time began, recent scientific developments in this field have not been accessible in a simple understandable form. This book, written

by one of the world's most eminent theoretical physicists, is important as it presents to readers current ideas about the role of time in theoretical cosmology. Recent observational discoveries, especially that the expansion rate of the universe is accelerating, have revolutionized the understanding of the energy content of the universe. This development leads to new possibilities for the beginning and end of cosmological time. This book emphasizes the notion of entropy and describes how it is theoretically possible that the universe may end in a finite time or that time can cycle and never end.

116pp
978-981-4280-58-7 US\$28 £21

Sept 2009



QUARKS, LEPTONS AND GAUGE FIELDS

(2nd Edition)

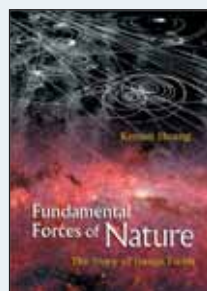
by **Kerson Huang** (MIT)

The main content is an introduction to Yang-Mills fields, and the Standard Model of Particle Physics. A concise introduction to quarks is provided, with a discussion of the representations of SU(3). This edition incorporates the following new subjects:

Wilson's renormalization scheme, and its relation to perturbative renormalization; pitfalls in quantizing gauge fields, such as the Gribov ambiguity; the lattice as a consistent regularization; Monte Carlo methods of solution; and the issues, folklores, and scenarios of quark confinement. More than a quarter of the book comprise of new materials. This book may be used as a text for a one-semester course on advanced quantum field theory, or reference book for particle physicists.

348pp
978-981-02-0659-8 US\$83 £66
978-981-02-0660-4(pbk) US\$47 £37

Oct 1992



FUNDAMENTAL FORCES OF NATURE

The Story of Gauge Fields

by **Kerson Huang** (Massachusetts Institute of Technology, USA)

Bestseller

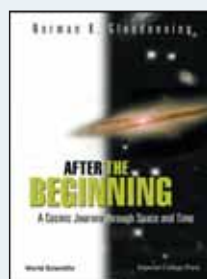
"The book delivers what it implicitly promises: an instructive and thoughtful tour of 20th century physics, with special emphasis on the theory of the fundamental constituents of matter and forces among them."

Physics Today

This book tells the story of gauge fields, from Maxwell's 1860 theory of electromagnetism to the 1954 theory of Yang and Mills that underlies the Standard Model of elementary particle theory. The author introduces people and events in experimental and theoretical physics that contribute to ideas that have shaped our conception of the physical world.

284pp
978-981-270-644-7 US\$69 £40
978-981-270-645-4(pbk) US\$38 £22

May 2007



AFTER THE BEGINNING

A Cosmic Journey through Space and Time

by **Norman K Glendenning** (Lawrence Berkeley National Laboratory, USA)

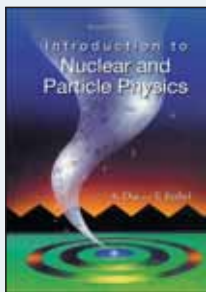
"... the author is particularly enlightening on early 'eras' in the history of the universe (superradiant, hadronic, leptonic, etc.), when elementary particles and then atoms were just starting to come together ... this account will serve a range of readers, from casual browsers to dedicated science enthusiasts."

Publishers Weekly

In a brilliant flash about fourteen billion years ago, time and matter were born in a single instant of creation. An immensely hot and dense universe began its rapid expansion everywhere, creating space where there was no space and time where there was no time. In the intense fire just after the beginning, the lightest elements were forged, later to form primordial clouds that eventually evolved into galaxies, stars, and planets. This evolution is the story told in this fascinating book.

228pp
978-1-86094-447-5 US\$73 £45
978-1-86094-448-2(pbk) US\$37 £22

Aug 2004



INTRODUCTION TO NUCLEAR AND PARTICLE PHYSICS

(Second Edition)

by **A Das & T Ferbel**
(University of Rochester, USA)

Bestseller

"This book can be recommended to those who find elementary particle physics of absorbing interest."

Contemporary Physics

The material begins with development of Rutherford scattering and, in the four following chapters, discusses sundry phenomenological issues concerning nuclear properties and structure, and general applications of radioactivity and of the nuclear force. This is followed by two chapters dealing with interactions of particles in matter, and how these characteristics are used to detect and identify such particles. A chapter on accelerators rounds out the experimental aspects of the field. The final seven chapters deal with elementary-particle phenomena, both before and after the realization of the Standard Model.

416pp
978-981-238-744-8(pbk) US\$61 £48

Dec 2003



SUBATOMIC PHYSICS

Third Edition

by **Ernest M Henley & Alejandro Garcia**
(University of Washington, USA)

Bestseller

"... The treatment is at just the right level to whet the reader's appetite, slake their thirst for understanding and assess the current 'state of the art' ... this is a highly enlightening and up-to-date text, rather ambitious in its scope but successful

in its aim to provide a comprehensive and comprehensible pedagogic overview of an exciting field of physics."

Contemporary Physics

The coverage includes new material on: Detectors and accelerators; Nucleon elastic form factor data; Neutrinos, their masses and oscillations; Chiral theories and effective field theories, and lattice QCD; Relativistic heavy ions (RHIC); Nuclear structure far from the region of stability; Particle astrophysics and cosmology.

640pp
978-981-270-056-8 US\$114 £71
978-981-270-057-5(pbk) US\$69 £41

Jul 2007



LECTURES ON QED AND QCD

Practical Calculation and Renormalization of One- and Multi-Loop Feynman Diagrams

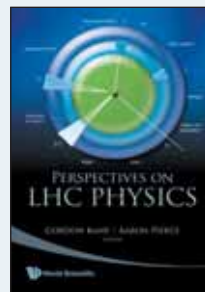
by **Andrey Grozin** (Budker Institute of Nuclear Physics, Russia)

The increasing precision of experimental data in many areas of elementary particle physics requires an equally precise theoretical description. In particular, radiative corrections (described by

one- and multi-loop Feynman diagrams) have to be considered. Although a growing number of physicists are involved in such projects, multi-loop calculation methods can only be studied from original publications. With its coverage of multi-loop calculations, this book serves as an excellent supplement to the standard textbooks on quantum field theory. Based around postgraduate-level lectures given by the author, the material is suitable for both beginners and graduate students.

236pp
978-981-256-914-1 US\$66 £40

Jan 2007



PERSPECTIVES ON LHC PHYSICS

edited by **Gordon Kane & Aaron Pierce** (University of Michigan, USA)

Bestseller

This book provides an overview on the techniques that will be crucial for finding new physics at the LHC, as well as perspectives on the importance and implications of the discoveries. Among the accomplished

contributors to this book are leaders and visionaries in the field of particle physics beyond the Standard Model, including two Nobel Laureates (Steven Weinberg and Frank Wilczek), and presumably some future Nobel Laureates, plus top younger theorists and experimenters. With its blend of popular and technical contents, the book will have wide appeal, not only to physical scientists but also to those in related fields.

352pp
978-981-277-975-5 US\$93 £55
978-981-283-389-1(pbk) US\$51 £30

Jul 2008



ON THE PULSAR

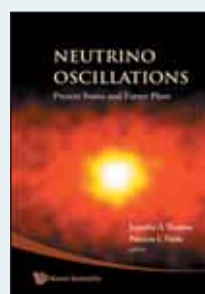
by **B B Kadomsev** (formerly of Russian Academy of Sciences)
foreword by **A Nomerotsky**

This book serves as a good introduction to the physics of pulsars by explaining the subject matter in simple terms which are understandable to both undergraduate physics students and also the general public. On the Pulsar links together ideas about physics,

informatics and biology, and contains many original examples, problems and solutions. It starts with simple examples about the regular structures that are possible in strong magnetic fields and the author then suggests that special conditions on the pulsar can result in some forms of self-organization. It will also make a valuable teaching guide.

150pp (approx.)
978-981-4289-72-6 US\$48 £36

Winter 2009



NEUTRINO OSCILLATIONS

Present Status and Future Plans

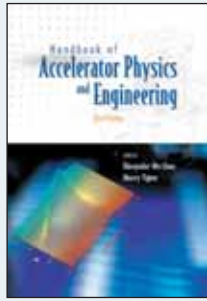
edited by **Jennifer A Thomas & Patricia L Vahle** (University College London, UK)

This book reviews the status of a very exciting field — neutrino oscillations — at a very important time. The fact that neutrinos have mass has only been proved in the last few years and the acceptance of that fact has opened up a whole new area of study to

understand the fundamental parameters of the mixing matrix. The book summarizes the results from all the experiments which have played a role in the measurement of neutrino oscillations and briefly describes the scope of some new planned experiments. Contributions include a theoretical introduction by Stephen Parke from FNAL, as well as articles from all the major experimental groups who have been pivotal in uncovering the nature of the neutrino mass.

276pp
978-981-277-196-4 US\$69 £40

Mar 2008



HANDBOOK OF ACCELERATOR PHYSICS AND ENGINEERING

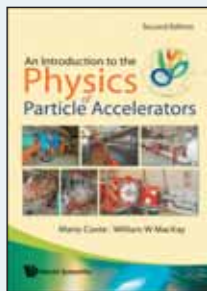
(3rd Printing)

edited by **Alexander Wu Chao** (Stanford Linear Accelerator Center) & **Maury Tigner** (Cornell University)

Bestseller

Edited by internationally recognized authorities in the field, this expanded edition of the bestselling Handbook first published in 1999 is aimed at the design and operation of modern accelerators including Linacs, Synchrotrons and Storage Rings. It is intended as a vade mecum for professional engineers and physicists engaged in these subjects. With a collection of 2200 equations, 345 illustrations and 185 tables, here one will find, in addition to the common formulae of previous compilations, hard to find, specialized formulae, recipes and material data pooled from the lifetime experience of many of the world's most able practitioners of the art and science of accelerators. This book will benefit physicists, engineers and practitioners in accelerator science.

740pp
978-981-02-3500-0 US\$105 £71
978-981-02-3858-2(pbk) US\$72 £43



AN INTRODUCTION TO THE PHYSICS OF PARTICLE ACCELERATORS

(Second Edition)

by **Mario Conte** (INFN, Italy) & **William W MacKay** (Brookhaven National Laboratory, USA)

This book provides a concise and coherent introduction to the physics of particle accelerators, with attention being paid to the design of an accelerator for use as an experimental tool. In the second edition, new chapters on spin dynamics of polarized beams as well as instrumentation and measurements are included, with a discussion of frequency spectra and Schottky signals. The additional material also covers quadratic Lie groups and integration highlighting new techniques using Cayley transforms, detailed estimation of collider luminosities, and new problems.

392pp
978-981-277-960-1 US\$91 £53
978-981-277-961-8(pbk) US\$58 £33

World Scientific Series in 20th Century Physics – Vol. 27

SELECTED PAPERS OF RICHARD FEYNMAN (With Commentary)

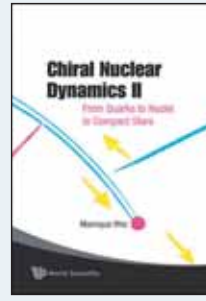
edited by **Laurie M Brown** (Northwestern University, USA)

"One cannot fail to be impressed by the range and quality of Feynman's work represented in this book, and to take pleasure in his distinctive, lucid and incisive style..."

Contemporary Physics

These scientific papers of Richard Feynman are renowned for their brilliant content and the author's striking original style. They are grouped by topic: path integral approach to the foundations of quantum mechanics and quantum field theory, renormalized quantum electrodynamics, theory of superfluid liquid helium, theory of the Fermi interaction, polarons, gravitation, partons, computer theory, etc.

1012pp
978-981-02-4130-8 US\$125 £92
978-981-02-4131-5(pbk) US\$51 £38



CHIRAL NUCLEAR DYNAMICS II

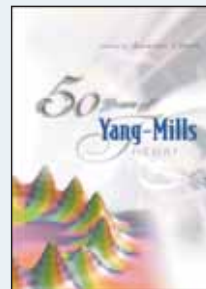
From Quarks to Nuclei to Compact Stars
2nd Edition

by **Mannque Rho** (Service de Physique Théorique, CEA-Saclay, France & Korea Institute for Advanced Study, Seoul, Korea)

This is the sequel to the first volume to treat in one effective field theory framework the physics of strongly interacting matter under extreme conditions. This is vital for understanding the high temperature phenomena taking place in relativistic heavy ion collisions and in the early Universe, as well as the high-density matter predicted to be present in compact stars. The underlying thesis is that what governs hadronic properties in a heat bath and/or a dense medium is hidden local symmetry which emerges from chiral dynamics of light quark systems and from the duality between QCD in 4D and bulk gravity in 5D as in AdS/QCD. Special attention is paid to hot matter relevant for relativistic heavy ion processes and to dense matter relevant for compact stars that are either stable or on the verge of collapse into black holes.

372pp
978-981-270-588-4 Jun 2008
US\$119 £68

Bestseller



50 YEARS OF YANG-MILLS THEORY

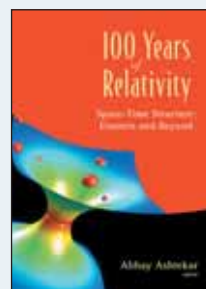
edited by **Gerardus 't Hooft** (Utrecht University, The Netherlands)

"...is a most handsome tribute of both historical and current interest, and a substantial addition to the existing literature ... This unusual and elegant festschrift is a treat for theorists."

CERN Courier

During the last five decades, Yang-Mills theory, which is undeniably the most important cornerstone of theoretical physics, has expanded widely. This makes the theory an indispensable topic for all who are involved in physics. The distinguished contributors are: S Adler, F A Bais, C Becchi, M Creutz, A De Rújula, B S DeWitt, F Englert, L D Faddeev, P Hasenfratz, R Jackiw, A Polyakov, V N Popov, R Stora, P van Baal, P van Nieuwenhuizen, S Weinberg, F Wilczek, E Witten, C N Yang.

500pp
978-981-238-934-3 Feb 2005
978-981-256-007-0(pbk) US\$104 £68
US\$41 £29



100 YEARS OF RELATIVITY

Space-Time Structure: Einstein and Beyond

edited by **Abhay Ashtekar** (Institute for Gravitational Physics and Geometry, Pennsylvania State University, USA)

"...dedicated to describing how our understanding of space-time structure has evolved since Einstein's path-breaking 1905 paper on special relativity, and how it might further evolve in the next century..."

Mathematical Reviews

This book is a lucid summary of the major advances in our understanding of the nature of space-time, presented by leading researchers. The articles take a long-range view of the subject and distill the most important advances in broad terms.

528pp
978-981-256-394-1 Nov 2005
978-981-270-030-8(pbk) US\$133 £77
US\$69 £40

Bestseller



BLACK HOLES

**An Introduction
(Second Edition)**

by **Derek Raine & Edwin Thomas**
(University of Leicester, UK)

This introduction to the fascinating subject of black holes is designed for advanced undergraduates and first year postgraduates. It provides an accessible introduction to the exact solutions of Einstein's vacuum field equations describing spherical and axisymmetric (rotating) black holes. The geometry and physical properties of these spacetimes are explored through the motion of particles and light. The use of different coordinate systems, maximal extensions and Penrose diagrams is explained. The association of the surface area of a black hole with its entropy is discussed and it is shown that with the introduction of quantum mechanics black holes cease to be black and can radiate.

212pp Sept 2009
978-1-84816-382-9 US\$51 £38
978-1-84816-383-6(pbk) US\$28 £21



UNDERSTANDING THE UNIVERSE

**From Quarks to
the Cosmos**

by **Don Lincoln** (Fermi National Accelerator
Laboratory, USA)

"... Lincoln offers lay readers a complete tour of particle physics ... (he) writes very well, using a mixture of humor, history and analogies as well basic scientific explanations ... (and) does a particularly good job of covering the full gamut of particle physics."

Choice

This book explains the fascinating world of quarks and leptons and the forces that govern their behavior. Told from an experimental physicist's perspective, it forgoes mathematical complexity, using instead particularly accessible figures and apt analogies. Included is an unprecedented chapter explaining the accelerators and detectors of modern particle physics experiments.

592pp May 2004
978-981-238-703-5 US\$104 £87
978-981-238-705-9(pbk) US\$37 £22



OUR PLACE IN THE UNIVERSE

by **Norman K Glendenning**
(Lawrence Berkeley National Laboratory, USA)

Our Place in the Universe tells the story of our world, formation of the first galaxies and stars formed from great clouds containing the primordial elements made in the first few minutes; birth of stars, their lives and deaths in fiery supernova explosions; formation of the solar system, its planets and many moons; life on Earth, its needs and vicissitudes on land and in the seas; finally exoplanets, planets that surround distant stars. Interspersed in the text are short pieces on some of those who revealed these wonders to us. It is written in a very authoritative and readable form and contains more than 100 color prints of the marvelous galaxies, and nebula that have been taken from space-based and land-based telescopes carried by NASA missions, the European Space Agency, the European Southern Laboratory in Chile and many other sources.

244pp Mar 2007
978-981-270-068-1 US\$80 £45
978-981-270-069-8(pbk) US\$41 £22

INTRODUCTION TO GENERAL RELATIVITY

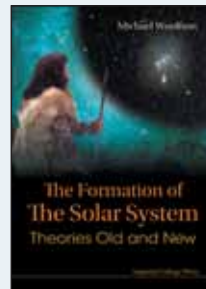
by **John Dirk Walecka** (College of William and Mary, USA)

"An intuitive approach, via an easy-to-visualize example, allows a pedagogical introduction of the main geometrical concepts and of the tools needed for the formulation of Einstein's theory ... a very useful ample selection of exercises which contribute to enriching the pedagogical value of this introductory text is also provided."

Mathematical Reviews

Contents: Particle on a Two-Dimensional Surface; Curvilinear Coordinate Systems; Particle on a Two-Dimensional Surface — Revisited; Some Tensor Analysis; Special Relativity; General Relativity; Precession of Perihelion; Gravitational Redshift; Neutron Stars; Cosmology; Gravitational Radiation; Special Topics; Problems.

356pp Apr 2007
978-981-270-584-6 US\$91 £53
978-981-270-585-3(pbk) US\$58 £33



THE FORMATION OF THE SOLAR SYSTEM

Theories Old and New

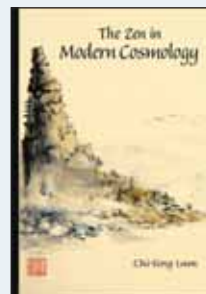
by **Michael Woolfson**
(University of York, UK)

"Several aspects of this book are very likeable. The author provides pictures of some folks whom one doesn't often see. There is a careful discussion of the work of some non-Anglophone astronomers, including Otto Schmidt and Victor Safronov, who are often neglected in English-language studies of planet formation."

The Observatory Magazine

This book traces the development of ideas about the origin of the Solar System. A survey of more modern ideas highlights the difficulties experienced by theories and also points the way towards the development of a more successful theory. In particular, the current Solar Nebula Theory is examined and discussed in some detail. By contrast, the Capture Theory, developed over the last forty years by the author, and supported by recent observations provides a complete description of the formation of the Solar System.

340pp Oct 2007
978-1-86094-824-4 US\$101 £56

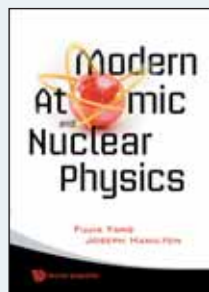


THE ZEN IN MODERN COSMOLOGY

by **Chi-Sing Lam**
(McGill University, Canada)

According to Modern Cosmology, our Universe came from a primordial state 13.7 billion years ago, with no matter and very little energy. In other words, it was almost empty. Where do the stars and galaxies, and everything else in the present universe come from then? This captivating book provides an answer to this question, and explains the observations and evidence behind the assertion of an almost empty primordial universe. Aimed at a general audience, it assumes no prior knowledge of astronomy or physics.

248pp Dec 2007
978-981-277-185-8 US\$52 £31
978-981-277-186-5(pbk) US\$37 £21



MODERN ATOMIC AND NUCLEAR PHYSICS

(Revised Edition)

by **Fujia Yang** (Fudan University, China & Nottingham University, UK) & **Joseph H Hamilton** (Vanderbilt University, USA)

New

The book is the culmination of the authors' many years of teaching and research. The book gives students a broad perspective of the current understandings of the basic structures of matter from atoms, nucleus to leptons, quarks, and gluons along with the essential introductory quantum mechanics and special relativity. The book retrospects the historical development and examines the challenging future directions of nuclear and particle physics. Interwoven within the content are up-to-date examples of very recent developments and future plans that show in detail how the techniques and ideas of atomic, nuclear, and particle physics have been used and are being used to solve important problems in basic and applied areas of physics, chemistry, and biology.

750pp (approx.) Winter 2009
978-981-283-678-6 US\$128 £96
978-981-283-679-3(pbk) US\$64 £48

THE MULTIFACETED SKYRMION

edited by **Gerald E Brown** (State University of New York, USA) & **Mannque Rho** (DSM-CEA Saclay, France and Hanyang University, Korea)

New

This is a sequel to the World Scientific volume edited by Gerald E Brown in 1994 entitled "Selected Papers, with Commentary, of Tony Hilton Royle Skyrme". There has been a series of impressive developments in the application of the skyrmion structure to wide-ranging physical phenomena.

Contents: Condensed Matter Physics: Baby Skyrmions, Quantum Hall Ferromagnets, Deconfined Quantum Critical Phenomena, High Temperature Superconductivity; **Particle and Nuclear Physics:** Pentaquark and Exotic Hadrons, Heavy-Quark Baryons, Skyrmion Structure of Light Nuclei, Electromagnetic Structure of Baryons, Dense Skyrmion Matter, Superqualitons; **String Theory:** Holographic Baryons, Holographic Dense Matter, Holographic Cheshire Cat, Nuclear Force from String Theory.

460pp (approx.) Spring 2010
978-981-4280-69-3 US\$118 £89



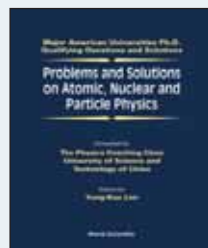
Advanced Series on Directions in High Energy Physics – Vol. 20

LEPTON DIPOLE MOMENTS

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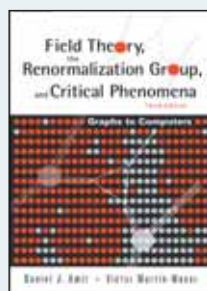
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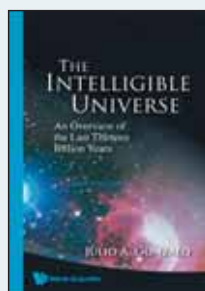
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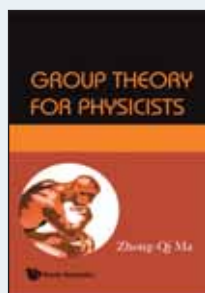
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Readership: Graduate students and young researchers in physics, especially theoretical physics.

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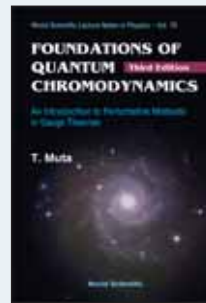
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Bestseller

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by **Harald J W Müller-Kirsten** (University of Kaiserslautern, Germany)
& **Armin Wiedemann** (Baden-Wuerttemberg Cooperative State
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