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Watching the English, Second Edition

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Relativistic Density Functional for Nuclear Structure World Scientific
Now updated with groundbreaking research, this award-winning classic examines the construction of sexual identity in biology, society, and history. Why do some people prefer heterosexual love while others fancy the same sex? Is sexual identity biologically determined or a product of convention? In this brilliant and provocative book, the acclaimed author of Myths of Gender argues that even the most fundamental knowledge about sex is shaped by the culture in which scientific knowledge is produced. Drawing on astonishing real-life cases and a probing analysis of centuries of scientific research, Fausto-Sterling demonstrates how scientists have historically politicized the body. In lively and impassioned prose, she breaks down three key dualisms --

sex/gender, nature/nurture, and real/constructed -- and asserts that individuals born as mixtures of male and female exist as one of five natural human variants and, as such, should not be forced to compromise their differences to fit a flawed societal definition of normality.

Science Has No Sex World Scientific

We have written this book in order to provide a single compact source for undergraduate and graduate students, as well as for professional physicists who want to understand the essentials of supersymmetric quantum mechanics. It is an outgrowth of a seminar course taught to physics and mathematics juniors and seniors at Loyola University Chicago, and of our own research over a quarter of a century.

Theory and Phenomenology of Sparticles University of Chicago Press

ONE OF WASHINGTON POST'S NOTABLE NONFICTION BOOKS OF THE YEAR A bracingly honest exploration of why there are still so few women in STEM fields—“beautifully written and full of important insights” (Washington Post). In 2005, when Lawrence Summers, then president of Harvard, asked why so few women, even today, achieve tenured positions in the hard sciences, Eileen Pollack set out to find the answer. A successful fiction writer, Pollack had grown up in the 1960s and ’70s dreaming of a career as a theoretical astrophysicist. Denied the

chance to take advanced courses in science and math, she nonetheless made her way to Yale. There, despite finding herself far behind the men in her classes, she went on to graduate summa cum laude, with honors, as one of the university's first two women to earn a bachelor of science degree in physics. And yet, isolated, lacking in confidence, starved for encouragement, she abandoned her ambition to become a physicist. Years later, spurred by the suggestion that innate differences in scientific and mathematical aptitude might account for the dearth of tenured female faculty at Summer's institution, Pollack thought back on her own experiences and wondered what, if anything, had changed in the intervening decades. Based on six years interviewing her former teachers and classmates, as well as dozens of other women who had dropped out before completing their degrees in science or found their careers less rewarding than they had hoped, The Only Woman in the Room is a bracingly honest, no-holds-barred examination of the social, interpersonal, and institutional barriers confronting women—and minorities—in the STEM fields. This frankly personal and informed book reflects on women's experiences in a way that simple data can't, documenting not only the more blatant bias of another era but all the subtle disincentives women in the sciences still face. The Only

Woman in the Room shows us the struggles women in the sciences have been hesitant to admit, and provides hope for changing attitudes and behaviors in ways that could bring far more women into fields in which even today they remain seriously underrepresented.

Poetry of the Anti-Jacobin Nicholas Brealey Stanley Mandelstam (1928–2016) was one of the most influential and respected particle theorists. Coming as a young chemical engineer from South Africa to study theoretical physics in England, he quickly became a leading physicist in his field. With his deep understanding of quantum field theory, he pioneered the development of the analytic S-matrix theory as well as the path-dependent formulations for quantum gauge theories and for quantum general relativity. They are being actively used for the electroweak theory and having their imprints in lattice gauge theory and loop quantum gravity. Also he elucidated the mechanisms for quark confinement in quantum chromodynamics, constructed non-perturbative bosonization methods in 1+1 dimensions, and proved the perturbative finiteness and $\beta=0$ of N=4 supersymmetric Yang–Mills theory. His work also led to the discovery of dual resonance models, which in turn became superstring theory. He was a leader in these developments, devoting much of his later years to

the proof that the theory is perturbatively finite so it can be considered as a contender for the theory of quantum gravity. He was also a very modest and friendly man, impressing everyone with his sharp intellect as well as his humanity. This volume contains essays written by many of his friends and students, including both detailed reports on his scientific achievements as well as personal reminiscences. Also collected in the volume are some selected reprints of Mandelstam's early seminal papers and abstracts of selected papers representing the full spectrum of his contributions. Contents: Recollections of Stanley Mandelstam (Geoffrey Chew) Scientific Biography of Stanley Mandelstam: 1955–1980 (Charles B Thorn) Scientific Biography of Stanley Mandelstam: 1981–2016 (Nathan Berkovits) Stanley Mandelstam: Brief Biography and Selected Publications with Commentary (Ling-Lie Chau) Stanley Mandelstam: The Early Years at a 'Most Stimulating Theoretical Group' (Sabine Lee) The Guiding Influence of Stanley Mandelstam, from S-Matrix Theory to String Theory (Peter Goddard) Remembering Stanley: From a Source of Inspiration to a Fair Strong Competitor (G Veneziano) Stanley Mandelstam and Me and Life on the Light-cone (Lars Brink) Reminiscences of Stanley Mandelstam (John H Schwarz) Stanley Mandelstam and My

Postdoctoral Years at Berkeley (Steven Frautschi) Reminiscences on Stanley Mandelstam (Korkut Bardakci) Remembering a Gentle Giant of Physics (Charles Sommerfield) Grad School with Stanley Mandelstam (Joseph Polchinski) Remembering a Gentle Giant of Physics (Mary K Gaillard) Mandelstam & NAL (Pierre Ramond) The Influence of Stanley Mandelstam (Michael B Green) My Interaction with Stanley Mandelstam (Paolo Di Vecchia) My Advisor Stanley (Sang-Jin Sin) Stanley Mandelstam My Graduate Supervisor (Arjun Berera) Reprints and Abstracts of Selected Publications: The Mandelstam Representations in the Mandelstam Variables for S-Matrices: Determination of the Pion-Nucleon Scattering Amplitude from Dispersion Relations and Unitarity. General Theory Analytic Properties of Transition Amplitudes in Perturbation Theory Two-Dimensional Representations of Scattering Amplitudes and Their Applications The S-Matrix Approach: Theory of Low-Energy Pion–Pion Interactions Dispersion Relations in Strong-Coupling Physics The Mandelstam Path-Field Formulation for Quantum Gauge Theories and Feynman Rules: Quantum Electrodynamics Without Potentia

Memorial Volume For Stanley Mandelstam

Univ of North Carolina Press

From the mid-1980s, an international collaboration of 600 physicists embarked on the investigation of

subnuclear physics at the high-energy frontier. As well as discovering the top quark, the heaviest elementary particle ever observed, the physicists analyzed their data to seek signals of new physics which could revolutionize our understanding of nature. Anomaly! tells the story of that quest, and focuses specifically on the finding of several unexplained effects which were unearthed in the process. These anomalies proved highly controversial within the large team: to some collaborators they called for immediate publication, while to others their divulgation threatened to jeopardize the reputation of the experiment. Written in a confidential, narrative style, this book looks at the sociology of a large scientific collaboration, providing insight in the relationships between top physicists at the turn of the millennium. The stories offer an insider's view of the life cycle of the "failed" discoveries that unavoidably accompany even the greatest endeavors in modern particle physics.

The Family Herald World Scientific Publishing Company

By year 1911 radioactivity had been discovered for over a decade, but its origin remained a mystery. Rutherford's discovery of the nucleus and the subsequent discovery of the neutron by Chadwick started the field of subatomic physics — a quest for understanding the fundamental constituents of matter. This book reviews the important achievements in

subatomic physics in the past century. The chapters are divided into two parts: nuclear physics and particle physics. Written by renowned authors who have made major developments in the field, this book provides the academics and researchers an essential overview of the present state of knowledge in nuclear and particle physics. Contents:Nuclear Physics:Particle Physics, From Rutherford to the LHC (S Weinberg)The Early Years and Beyond (E M Henley and A García)100 Years of Nuclear Mass Measurements and Models (G T Garvey)Symmetries and Dynamical Symmetries in Nuclei (I Talmi)Nuclear Fission (R Vogt and J Randrup)Parity- and Time-Reversal Tests in Nuclear Physics (D Hertzog and M J Ramsey-Musolf)High Energy Nuclear Physics: From Bear Mountain to the LHC (L McLerran)Chiral Symmetry in Subatomic Physics (U-G Meiβner)Exotic Nuclei Far From the Stability Line (K Hagino, I Tanihata and H Sagawa)Particle Physics:A Short History of Colliders (L Evans)4π-Detectors (C Tully)Large Underground Detectors for Proton Decay and Neutrino Physics (K Scholberg)Jets and QCD (S D Ellis and D E Soper)Diffractive Phenomena in High Energy Processes (L Frankfurt and M Strikman)Weak Interactions: From Current–Current to Standard Model and Beyond (R N Mohapatra)Neutrino

Physics (L Wolfenstein)Introduction to Renormalization in Field Theory (L-F Li)Lattice Gauge Theory and the Origin of Mass (A S Kronfeld)String Theory and M-Theory (J H Schwarz) Readership: Students, researchers and academics interested in nuclear and particle physics. Keywords:Nuclear and Particle Physics;Symmetries;Conservation Laws;Quarks;Neutrinos;Astrophysics Reviews: “Each essay's overall breadth and understanding are impressive, and the separate chapters combine to make this work an unprecedented survey of sub-atomic physics research spanning the last 100 years, with insights into where it might head in the century to come.” Australian Physics

Varieties of Exile World Scientific

Do unto others as you would others should do to you. You can never be rude if you bear the rule always in mind, for what lady likes to be treated rudely? True Christian politeness will always be the result of an unselfish regard for the feelings of others, and though you may err in the ceremonious points of etiquette, you will never be im polite. Politeness, founded upon such a rule, becomes the expression, in graceful manner, of social virtues. The spirit of politeness consists in a certain attention to forms and ceremonies, which are meant both to please others and ourselves, and to make others pleased with us ;a still clearer

definition may be given by saying that politeness is goodness of heart put into daily practice; the.re can be no true, politeness without kindness, purity, singleness of heart, and sensibility. Many believe that politeness is but a mask worn in the world to conceal bad passions and impulses, and to make a show of possessing virtues not really existing in the heart; thus, that politeness is merely hypocrisy and dissimulation. Do not believe this; be certain that those who profess such a doctrine are practising themselves the deceit they condemn so much.

Origin of Symmetries

World Scientific

This Handbook charts the growing area of journalism studies, exploring the current state of theory and setting an agenda for future research in an international context. The volume is structured around theoretical and empirical approaches, and covers scholarship on news production and organizations; news content; journalism and society; and journalism in a global context. Emphasizing comparative and global perspectives, each chapter explores: Key elements, thinkers, and texts Historical context Current state of the art Methodological issues Merits and advantages of the approach/area of studies Limitations and critical issues of the approach/area of studies Directions for future research Offering broad international coverage from top-tier contributors,

this volume ranks among the first publications to serve as a comprehensive resource addressing theory and scholarship in journalism studies. As such, the Handbook of Journalism Studies is a must-have resource for scholars and graduate students working in journalism, media studies, and communication around the globe.

The Woman's World World Scientific Publishing Company

The development in our understanding of symmetry principles is reviewed. Many symmetries, such as charge conjugation, parity and strangeness, are no longer considered as fundamental but as natural consequences of a gauge field theory of strong and electromagnetic interactions. Other symmetries arise naturally from physical models in some limiting situation, such as for low energy or low mass. Random dynamics and attempts to explain all symmetries ? even Lorentz invariance and gauge invariance ? without appealing to any fundamental invariance of the laws of nature are discussed. A selection of original papers is reprinted.

Theoretical Physics In Your Face: Selected Correspondence Of Sidney Coleman

Createspace Independent Publishing Platform

Supersymmetry or SUSY, one of the most beautiful recent ideas of physics, predicts sparticles existing as superpartners of particles. This book gives a theoretical and

phenomenological account of sparticles. Starting from a basic level, it provides a comprehensive, pedagogical and user-friendly treatment of the subject of four-dimensional N=1 supersymmetry as well as its observational aspects in high energy physics and cosmology. Part One of the book introduces the requisite formal theory, preceded by a discussion of the naturalness problem. Part Two describes the supersymmetrization of the Standard Model of particle interactions as well as the origin of soft supersymmetry breaking and how it can be mediated from higher energies. Search strategies for sparticles, supersymmetric Higgs bosons, nonminimal scenarios and cosmological implications are some of the other topics covered. Novel features of the book include a dictionary between two-component and four-component spinor notation, a step-by-step derivation of the nonrenormalization theorem, an extended discussion of supersymmetric renormalization group evolution, detailed analyses of minimal and nonminimal models with gravity (including anomaly) mediated and gauge mediated supersymmetry breaking as well as elaborate self-contained presentations of collider signals of sparticles plus supersymmetric Higgs bosons and of supersymmetric cosmology. Appendices

list all Feynman rules for the vertices of the Minimal Supersymmetric Standard Model. Contents:Introduction and Overview:Supersymmetry : Why and HowSupersymmetry Formalism:PreliminariesAlgebraic AspectsFree Superfields in SuperspaceInteracting SuperfieldsSuperspace Perturbation Theory and SupergraphsGeneral Aspects of Supersymmetry BreakingSupersymmetry Phenomenology:Basic Structure of the MSSMSoft Supersymmetry Breaking in the MSSMHiggs Bosons in the MSSMEvolution from Very High EnergiesGravity Mediated Supersymmetry BreakingGauge Mediated Supersymmetry BreakingBeyond the MSSMSupersymmetry at CollidersSupersymmetric CosmologyConclusion: Wish List, Roadmap and Fine Tuning Readership: Graduate students, teachers and researchers in theoretical as well as experimental high energy physics. Keywords:Reviews: “I find the book very attractive and very useful at this time. There are not so many up-to-date books for the LHC phenomenology.” G Altarelli CERN “It seeks to be the complete primer on supersymmetry for the theorist, phenomenologist and experimentalist. The presentation is lucid throughout and the notation is well-chosen. This is a highly recommended book for the student of particle physics who has studied the basics of quantum field theory and the phenomenon of the

known elementary particles. In addition, it is a handy source of information (and most valuably, explanations) for senior students and practicing physicists in other areas, who will increasingly feel the need to know about the area of fundamental science most finely poised for a dramatic experimental breakthrough." Current Science "... very informative book on supersymmetric particles ..." Professor Barry Barish California Institute of Technology "Very good text. Although suitable for those who want to begin working in the field, nonexperts can get substantial insights into the goals and motivation behind the theory by browsing through. The book begins with a good pedagogical treatment of the superspace formalism and ends with an extensive summary of Feynman rules. About 300 pages cover the phenomenology of supersymmetry — from colliders to dark matter — with significant discussion of supersymmetry breaking and a 30-page chapter on supersymmetric Higgs bosons." Physics Today

A Singularly Unfeminine Profession Routledge

The necessity of describing three-nucleon and three-quark systems have led to a constant interest in the problem of three particles. The question of including relativistic effects appeared together with the consideration of the decay amplitude in the framework of the dispersion technique. The relativistic dispersion

description of amplitudes always takes into account processes connected with the investigated reaction by the unitarity condition or by virtual transitions; in the case of three-particle processes they are, as a rule, those where other many-particle states and resonances are produced. The description of these interconnected reactions and ways of handling them is the main subject of the book.

Three-particle Physics and Dispersion Relation Theory World Scientific

New York Times Bestseller • Finalist for the Pulitzer Prize • An Oprah's Book Club Selection “Powerful . . . [Kingsolver] has with infinitely steady hands worked the prickly threads of religion, politics, race, sin and redemption into a thing of terrible beauty.” —Los Angeles Times Book Review The Poisonwood Bible, now celebrating its 25th anniversary, established Barbara Kingsolver as one of the most thoughtful and daring of modern writers. Taking its place alongside the classic works of postcolonial literature, it is a suspenseful epic of one family's tragic undoing and remarkable reconstruction over the course of three decades in Africa. The story is told by the wife and four daughters of Nathan Price, a fierce, evangelical Baptist who takes his family and mission to the Belgian Congo in 1959. They carry with them everything they believe they will need from home, but soon find that all of it—from garden seeds to Scripture—is calamitously transformed on African

soil. The novel is set against one of the most dramatic political chronicles of the twentieth century: the Congo's fight for independence from Belgium, the murder of its first elected prime minister, the CIA coup to install his replacement, and the insidious progress of a world economic order that robs the fledgling African nation of its autonomy. Against this backdrop, Orleanna Price reconstructs the story of her evangelist husband's part in the Western assault on Africa, a tale indelibly darkened by her own losses and unanswerable questions about her own culpability. Also narrating the story, by turns, are her four daughters—the teenaged Rachel; adolescent twins Leah and Adah; and Ruth May, a prescient five-year-old. These sharply observant girls, who arrive in the Congo with racial preconceptions forged in 1950s Georgia, will be marked in surprisingly different ways by their father's intractable mission, and by Africa itself. Ultimately each must strike her own separate path to salvation. Their passionately intertwined stories become a compelling exploration of moral risk and personal responsibility.

The Benefactress Thomas Nelson Publishers

Reproduction of the original.

Library of Universal Knowledge NYRB Classics

The book gives a quite complete and up-to-date picture of the Standard Theory with an historical

perspective, with a collection of articles written by some of the protagonists of present particle physics. The theoretical developments are described together with the most up-to-date experimental tests, including the discovery of the Higgs Boson and the measurement of its mass as well as the most precise measurements of the top mass, giving the reader a complete description of our present understanding of particle physics.

Elements of Ethics for Physical Scientists BoD – Books on Demand

Genre studies and genre approaches to literacy instruction continue to develop in many regions and from a widening variety of approaches. Genre has provided a key to understanding the varying literacy cultures of regions, disciplines, professions, and educational settings. GENRE IN A CHANGING WORLD provides a wide-ranging sampler of the remarkable variety of current work. The twenty-four chapters in this volume, reflecting the work of scholars in Europe, Australasia, and North and South America, were selected from the over 400 presentations at SIGET IV (the Fourth International Symposium on Genre Studies) held on the campus of UNISUL in Tubarão, Santa Catarina, Brazil in August 2007—the largest gathering on genre to that date. The chapters also represent a wide variety of approaches, including rhetoric, Systemic Functional Linguistics, media and critical cultural

studies, sociology, phenomenology, enunciation theory, the Geneva school of educational sequences, cognitive psychology, relevance theory, sociocultural psychology, activity theory, Gestalt psychology, and schema theory. Sections are devoted to theoretical issues, studies of genres in the professions, studies of genre and media, teaching and learning genre, and writing across the curriculum. The broad selection of material in this volume displays the full range of contemporary genre studies and sets the ground for a next generation of work.

The Standard Theory of Particle Physics Beacon Press

German-born Marie Zakrzewska (1829-1902) was one of the most prominent female physicians of nineteenth-century America. Best known for creating a modern hospital and medical education program for women, Zakrzewska battled against the gendering of science

The Medical Times and Gazette World Scientific

The complexity and uncertainty of the idea of home are very much at issue in the stories Gallant writes about Canada, her home country. Included in this new collection are the celebrated Linnet Muir stories, wonderfully wise and funny investigations into the difficulties of growing up and breaking free.

Constructing Quarks Parlor Press LLC

In 1981 Mary K Gaillard became the first woman

on the physics faculty at the University of California at Berkeley. Her career as a theoretical physicist spanned the period from the inception — in the late 1960s and early 1970s — of what is now known as the Standard Model of particle physics and its experimental confirmation, culminating with the discovery of the Higgs particle in 2012. A Singularly Unfeminine Profession recounts Gaillard's experiences as a woman in a very male-dominated field, while tracing the development of the Standard Model as she witnessed it and participated in it. The generally nurturing environment of her childhood and college years, as well as experiences as an undergraduate in particle physics laboratories and as a graduate student at Columbia University — which cemented her passion for particle physics — left her unprepared for the difficulties that she confronted as a second year graduate student in Paris, and later at CERN, another particle physics laboratory near Geneva, Switzerland. The development of the Standard Model, as well as attempts to go beyond it and aspects of early universe physics, are described through the lens of Gaillard's own work, in a language written for a lay audience. Contents:PrefaceBeginnin gsHollins and Paris: To Paris and BackBrookhaven and ColumbiaParis Again: The Worst YearCERNFermilab: Charm, The Delta I=½

Rule, Search for CharmCERN Again: Two Weeks in the Soviet Union, The Higgs Particle, Gluon Jets, Bottom Quarks, Penguins and GUTsUnrest: Annecy: SupergutsReturningMy Survival MechanismAfterlife: Physics at a Trillion Electron Volts, Physics at the Planck EnergyReflectionsAcronymsGlossary Readership: Students interested in women's issues and/or particle physics, professionals interested in women's issues and/or the history of the development of the Standard Model, general public interested in women's issues and/or particle physics. Key Features:Professor Gaillard is a leading particle theorist who has participated in many important contributions to the development of the Standard Model, including the prediction of the quark mass and of gluon jets. She is a recipient of the E O Lawrence Award and the J J Sakurai prize. She is a member of the National Academy of Sciences and the American Philosophical SocietyAs a woman in physics at a time when there were very few, her account of the history of the Standard Model offers a unique perspective on both the physics and the issue of gender bias in a very male-dominated fieldThe history of the development of the Standard Model, as well as attempts to understand deeper physics underlying that model and concomitant developments in cosmology, is described in

conjunction with her own research and life experiencesKeywords:Women in Physics;Autobiography;Particles and Fields;CosmologyReview: “Her frank autobiography is an honest, revelatory account of her many discoveries, made as she battled gender bias and faced the demands of raising three children ...Gaillard became a grande dame of particle physics, with positions on many committees that shaped particle-physics research in the United States and, ultimately, the world. The story is as much about a thrilling period in particle physics as about Gaillard's struggle to establish herself in a male-dominated sphere ... As a colleague comments in the book: 'She did it all!'” Nature "It was clearly a hard time to be a successful theorist, and a woman, and Gaillard's account makes for a compelling tale. She was talented, determined and tough &#x2014 she made the system accommodate her. Life isn't like that now, and we have people like her to thank for it." Times Higher Education

The Handbook of Journalism Studies World Scientific

The international hit returns with even more wit and insight into the hidden rules that make England English.

Public Opinion Anna Teresia Danielsson

This book aims to provide a detailed introduction to the state-of-the-art covariant density functional theory, which follows the Lorentz invariance from the very

beginning and is able to describe nuclear many-body quantum systems microscopically and self-consistently. Covariant density functional theory was introduced in nuclear physics in the 1970s and has since been developed and used to describe the diversity of nuclear properties and phenomena with great success. In order to provide an advanced and updated textbook of covariant density functional theory for graduate students and nuclear physics researchers, this book summarizes the enormous amount of material that has accumulated in the field of covariant density functional theory over the last few decades as well as the latest developments in this area. Moreover, the book contains enough details for readers to follow the formalism and theoretical results, and provides exhaustive references to explore the research literature.
Contents:Concept of Covariant Density Functional Theory (P Ring)Relativistic Mean-Field Theory (J Meng, P Ring and P W Zhao)Relativistic Mean Field Description of Exotic Nuclei (J Meng, P Ring, P W Zhao and S G Zhou)Relativistic Hartree–Fock–Bogoliubov Theory: Ground States and Excitations (W H Long, J Meng and N Van Giai)Superheavy Nuclei and Fission Barriers (B N Lu, J Zhao, E G Zhao and S G Zhou)Relativistic Symmetries in Nuclear Single-Particle Spectra (J Y Guo, H Z Liang, J Meng and S-G Zhou)Structure of

Hypernuclei in Relativistic Approaches (K Hagino and J M Yao)Rotating Nuclei: From Ground State to the Extremes of Spin and Deformation (A V Afanasjev)Novel Rotational Excitations (J Meng, S Q Zhang and P W Zhao)Small Amplitude Motion (N Paar and Y Niu)Nuclear Shell Structure and Response with Quasiparticle-Vibration Coupling (E Litvinova and P Ring)Beyond the Relativistic Mean-Field Approximation — Collective Correlations (Z P Li, T Nikšić, D Vretenar and J M Yao)Heavy Element in Astrophysical Nucleosynthesis (B H Sun and Z M Niu)Relativistic Density Functional Theory for Finite Nuclei and Neutron Stars (J Piekarewicz)Relativistic Versus Non-Relativistic Mean Field (P-G Reinhard) Readership: Graduate students in nuclear physics, nuclear physicists; theoretical physicists interested in the study of quantum many body problems. Key Features:This book focuses on the covariant version of density functional theory, summarizes the latest developments as well as the enormous amount of material that has accumulated over the last few decades, and provides a comprehensive overview of its development and applications for nuclear structureThis book contains enough details for a beginner in nuclear physics to follow the formalism and theoretical results, and provides exhaustive references to explore the research

literatureThe authors include all the experts in this field including many world-leading scientists from China, Europe, Japan, and United StatesKeywords:Covariant Density Functional Theory;Relativistic Mean-Field;Pairing Correlations;Exotic Nucleus;Hartree(–Fock)–Bogoliubov Theory;Relativistic Symmetries;Superheavy Nuclei;Fission;Hypernuclei;Well-Deformed and Superdeformed Rotational Excitation;Electric and Magnetic Rotation;Collective Excitations;Small Amplitude Motion;Quasiparticle-Vibration Coupling;Beyond Mean-Field Approximation;Astrophysical Nucleosynthesis;Neutron Star