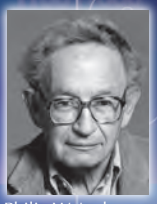
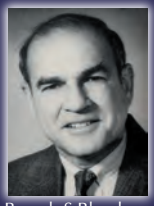
# NEW BOOKS BY NOBEL LAUREATES AND ON THE NOBEL PRIZES 2022–2023


Philip W Anderson


Sir Derek H R Barton


Hans A Bethe

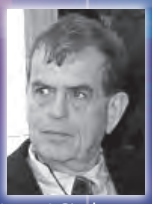

Nicolaas Bloembergen


Baruch S Blumberg


Aage Niels Bohr


Subrahmanyan Chandrasekhar


Georges Charpak


Aaron J Ciechanover


Claude Cohen-Tannoudji


Leon N Cooper


Pierre-Gilles de Gennes


Richard Feynman

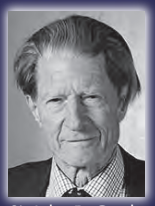

Kenichi Fukui


Murray Gell-Mann


Ivar Giaever


Vitaly L Ginzburg


David Gross


Sir John B. Gurdon


Lars Peter Hansen


Alan J Heeger


Niels K Jerne


Takaaki Kajita


H Gobind Khorana


Lawrence R Klein


Herbert Kroemer


Rita Levi-Montalcini


Harry M Markowitz

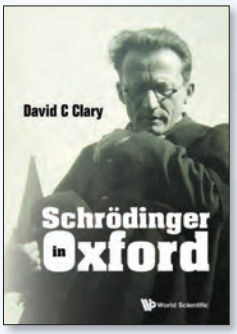

Sir Nevill F Mott


Ben Roy Mottelson


Karl Alex Müller

## SCHRÖDINGER IN OXFORD

by **David C Clary** *(University of Oxford, UK)*




***"Clary's account makes for fascinating reading, not least because of its clear style and copious citation of primary sources and original scientific articles. The author provides a compelling narrative of … Schrödinger's departure in 1933 from a highly eminent position at the University of Berlin to a precarious, untenured position at Magdalen College … with political and scientific considerations deftly woven together."***

**Science**

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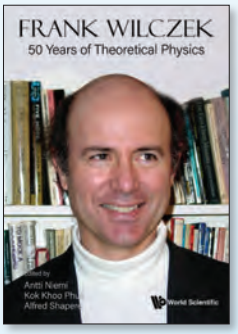
|---|---|---|
| **420pp** | **Apr 2022** | |
| **978-981-125-100-9(pbk)** | **US$38** | **£35** |
| **978-981-125-000-2** | **US$98** | **£85** |

## FRANK WILCZEK
## 50 Years of Theoretical Physics

edited by **Antti Niemi** *(Nordita, Sweden)*, **Kok Khoo Phua** *(Nanyang Technological University, Singapore)* & **Alfred Shapere** *(University of Kentucky, USA)*




Frank Wilczek received the 2004 Nobel Prize in Physics for the discovery of asymptotic freedom. This volume serves as a tribute to Frank Wilczek's legendary scientific contributions, commemorating his 70th birthday and the first 50 years of his career as a theoretical physicist. The contributors include several of his PhD students, close collaborators, and both past and present colleagues.

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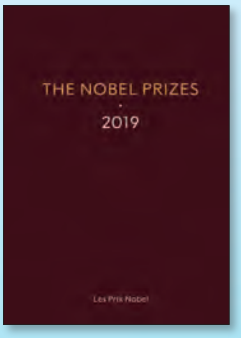
| **352pp** | **Apr 2022** | |
| **978-981-125-517-5** | **US$68** | **£55** |

## THE NOBEL PRIZES 2019

edited by **Karl Grandin** *(The Royal Swedish Academy of Sciences, Stockholm, Sweden)*




*The Nobel Prizes* is the official yearbook of the Nobel Foundation. This edition provides extensive information about the 2019 laureates: their Nobel Prize lectures and their autobiographies, as well as presentation speeches and background about the Nobel festivities. *Published on behalf of the Nobel Foundation.*

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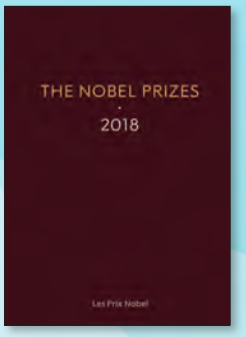
|---|---|---|
| **488pp** | **May 2022** | |
| **978-981-125-620-2(pbk)** | **US$58** | **£45** |
| **978-981-125-595-3** | **US$148** | **£120** |

## THE NOBEL PRIZES 2018

edited by **Karl Grandin** *(The Royal Swedish Academy of Sciences, Stockholm, Sweden)*




*The Nobel Prizes* is the official yearbook of the Nobel Foundation. This edition provides extensive information about the 2018 laureates: their Nobel Prize lectures and their autobiographies, as well as presentation speeches and background about the Nobel festivities. *Published on behalf of the Nobel Foundation.*

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| **472pp** | **Mar 2021** | |
| **978-981-121-981-8(pbk)** | **US$58** | **£50** |
| **978-981-121-949-8** | **US$148** | **£130** |

## GENES, GERMS AND MEDICINE
## The Life of Joshua Lederberg

by **Jan Sapp** *(York University, Canada)*


***"Sapp presents an engaging biography of Nobel laureate Joshua Lederberg whose prophetic insights into biological warfare, bioterrorism, and pandemic preparedness, were years ahead of his time. Sapp draws on a broad array of sources to interweave Lederberg's personal biography and professional life. The writing is very good throughout ... the text effectively portrays the life and work of one of the 20th century's most brilliant and effective scientists. Summing Up: Recommended."***

**CHOICE**

**Readership**: Molecular biologists, Microbiologists, Bioengineers, Historians of biology, Historians of medicine, Historians of Science, Microbial evolutionists, Evolutionary biologists.

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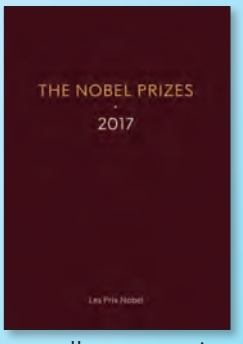
| **424pp** | **Mar 2021** | |
| **978-981-123-598-6(pbk)** | **US$38** | **£35** |
| **978-981-122-547-5** | **US$98** | **£85** |

## THE NOBEL PRIZES 2017
## Formerly Les Prix Nobel

edited by **Karl Grandin** *(The Royal Swedish Academy of Sciences, Stockholm, Sweden)*




Published on behalf of the Nobel Foundation.

*The Nobel Prizes* is the official yearbook of the Nobel Foundation. This edition provides extensive information about the 2017 laureates: their Nobel Prize lectures and their autobiographies, as well as presentation speeches and background about the Nobel festivities.

Nobel Laureates (2017): Physics – Rainer Weiss, Barry C. Barish and Kip S. Thorne; Chemistry – Jacques Dubochet, Joachim Frank and Richard Henderson; Physiology or Medicine – Jeffrey C. Hall, Michael Rosbash and Michael W. Young; Literature – Kazuo Ishiguro; Peace – International Campaign to Abolish Nuclear Weapons (ICAN); Economic Sciences – Richard C. Thaler.

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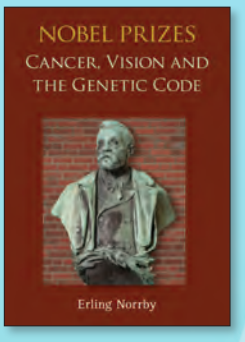
| **520pp** | **May 2020** | |
| **978-981-120-083-0** | **US$128** | **£115** |
| **978-981-120-084-7(pbk)** | **US$68** | **£60** |

## THE NOBEL PRIZES: CANCER, VISION AND THE GENETIC CODE

by **Erling Norrby** *(The Royal Swedish Academy of Sciences, Stockholm, Sweden)*




This book is the fourth in a series of bestselling titles by the author on the Nobel Prizes and life sciences. Very few Nobel Prizes in physiology or medicine have focused directly on the means of identifying and treating cancer. However, in 1966 the Prize recognized Peyton Rous, who had discovered that viruses can cause tumors in animals, and Charles Huggins who had introduced hormone treatment of human cancers. The view on the role of viruses in cancer has shifted over time. These studies have given a comprehensive picture of the role of changes in the genetic material in the progressive developments towards severe forms of cancers.

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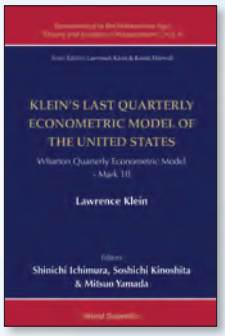
| **424pp** | **Sep 2019** | |
| **978-981-120-085-4** | **US$88** | **£75** |

Econometrics in the Information Age: Theory and Practice of Measurement - Volume 6

## KLEIN'S LAST QUARTERLY ECONOMETRIC MODEL OF THE UNITED STATES

### Wharton Quarterly Econometric Model: Mark 10

Edited by **Shinichi Ichimura** (*Kyoto University, Japan*), **Soshichi Kinoshita** (Nagoya University, Japan), **Mitsuo Yamada** (*Chukyo University, Japan*)

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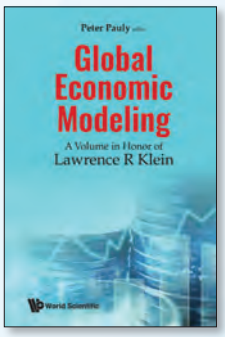
| **268pp** | **Feb 2018** | |
| **978-981-3229-93-8** | **US$108** | **£95** |

## GLOBAL ECONOMIC MODELING

### A Volume in Honor of Lawrence R Klein

Conference on Global Economic Modeling
Rotman School of Management, University of Toronto, 10 – 12 June 2015

Edited by **Peter Pauly** (*University of Toronto, Canada*)

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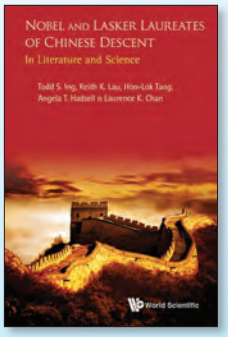
| **344pp** | **Apr 2018** | |
| **978-981-3220-43-0** | **US$148** | **£123** |

## NOBEL AND LASKER LAUREATES OF CHINESE DESCENT

### In Literature and Science

*by* **Todd S Ing** *(Loyola University Chicago, USA)*, **Keith K Lau** *(University of Hong Kong Shenzhen Hospital, China)*, **Hon-Lok Tang** *(Princess Margaret Hospital, Hong Kong)*, **Angela T Hadsell** & **Laurence K Chan** *(University of Colorado, USA)*




The purpose of this book is to foster the pursuit of literature and science for people in the world. The book attempts to narrate the struggles endured by the Laureates and the immense joy and awards garnered once their dreams became reality, while at the same time, bringing about momentous benefits to humankind.

**Contents**: ***Nobel Laureates***: Chen Ning Yang, Tsung-Dao Lee, Samuel Chao Chung Ting, Yuan Tseh Lee, Steven Chu, Daniel Chee Tsui, Xingjian Gao, Roger Yonchien Tsien, Charles Kuen Kao, Mo Yan (a pen name, 莫言); Moye Guan (the real name, 管謨業), Youyou Tu; ***Lasker Laureates***: Choh Hao Li, Min Chiu Li, Yuet Wai Kan; ***Special Feature, Wolf Laureate***: Chien-Shiung Wu

**Readership:** General.

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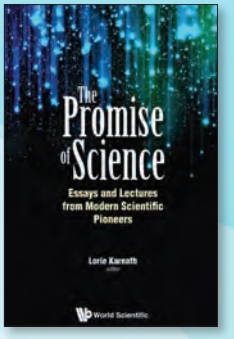
| **250pp** | **Aug 2018** | |
| **978-981-4704-60-1** | **US$85** | **£71** |
| **978-981-4704-61-8(pbk)** | **US$38** | **£32** |

## THE PROMISE OF SCIENCE

### Essays and Lectures from Modern Scientific Pioneers

edited by **Lorie Karnath**
*(Molecular Frontiers Foundation, Germany)*




Chronicling the revolutionary ideas of Nobel Laureates, winners of Wolf Prize, US National Medal of Science and other notable scientists: Frances H. Arnold, Yuan Tseh Lee, Jack W. Szostak, Gerard 't Hooft, Robert Langer, Richard N. Zare, Paul Alivisatos, Arvid Carlsson and Jennifer Doudna.

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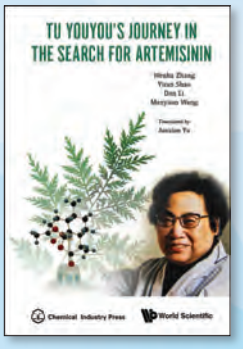
| **180pp** | **Feb 2019** | |
| **978-981-3273-28-3** | **US$78** | **£70** |

## TU YOUYOU'S JOURNEY IN THE SEARCH FOR ARTEMISININ

By **Wenhu Zhang** (*Chemical Industry Press, China*), **Yiran Shao** (*Chemical Industry Press, China*), **Dan Li** *(Beijing Television Station, China)*, **Manyuan Wang** (*Capital Medical University, China*) Translated by **Junxian Yu** (*Capital Medical University, China*)




This book is an autobiographical science book chronicling in detail the great experiences of Tu Youyou from her childhood to winning the Nobel Prize in Physiology or Medicine.

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| **132pp** | **Feb 2018** | |
| **978-981-3207-63-9** | **US$68** | **£56** |
| **978-981-3207-64-6(pbk)** | **US$38** | **£32** |

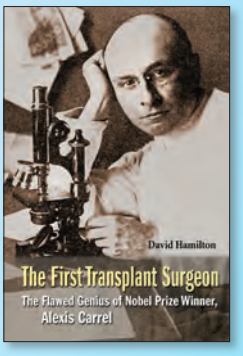
## THE FIRST TRANSPLANT SURGEON

### The Flawed Genius of Nobel Prize Winner, Alexis Carrel

*by* **David Hamilton** *(St Andrews University, Scotland)*

***"Well researched and highly readable, The First Transplant Surgeon pulls off the difficult trick of re-evaluating Dr Alexis Carrel without ignoring his contentious beliefs and should prove of real interest to surgeons, historians and scientists."***

**British Society for the History of Medicine**




**Readership:** General public, transplant surgeons, vascular surgeons, historians.

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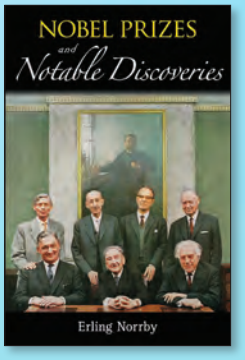
| **608pp** | **Oct 2016** | |
| **978-981-4699-36-5** | **US$70** | **£58** |
| **978-981-4699-37-2(pbk)** | **US$36** | **£30** |

## NOBEL PRIZES AND NOTABLE DISCOVERIES

*by* **Erling Norrby** *(The Royal Swedish Academy of Sciences, Sweden)*

***"In the current volume Norrby covers not only the major prizes in Neuroscience given in the 1960s, but he also traces the history of neuroscience from its onset to almost the present day. This is an extraordinary contribution to the Nobel Prize and to the intellectual history of modern biological science."***

**Eric Kandel**
Nobel Laureate in Physiology or Medicine, 2000




**Readership:** General.

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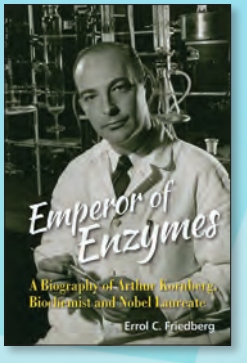
| **500pp** | **Sep 2016** | |
| **978-981-3144-63-7** | **US$78** | **£65** |
| **978-981-3144-64-4(pbk)** | **US$38** | **£32** |

## EMPEROR OF ENZYMES

### A Biography of Arthur Kornberg, Biochemist and Nobel Laureate

*by* **Errol C Friedberg** *(University of Texas Southwestern School of Medicine, USA)*




This book chronicles the life and work of the late Arthur Kornberg, one of the premier biochemists in the world, who discovered the enzyme DNA polymerase, a key enzyme required for the biosynthesis of DNA. The book provides readers with a view of the personality and character of one of the great biochemists of the late 20th century, as well as insights into the origin and growth of the discipline of nucleic acid biochemistry, especially the biosynthesis of DNA.

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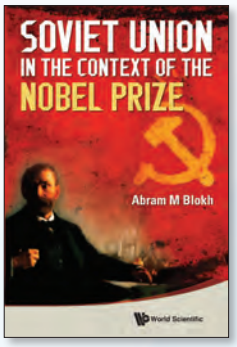
| **340pp** | **Jul 2016** | |
| **978-981-4699-80-8** | **US$70** | **£58** |
| **978-981-4699-81-5(pbk)** | **US$36** | **£30** |

## SOVIET UNION IN THE CONTEXT OF THE NOBEL PRIZE

*by* **Abram M Blokh** *(Russian Academy of Sciences)*




The result of meticulous research by Professor Abram Blokh, this book presents facts, documents, thoughts and comments on the system of the Nobel Prize awards to Russian and Soviet scientists. It provides a comprehensive overview of the relationship between the ideas expressed by the Nobel Foundation and those expressed by the autocratic and totalitarian regimes in Russia and the ex-Soviet Union during the 20th century who had the same attitude of revulsion toward the intellectual and humanistic values represented by the Nobel Prizes.

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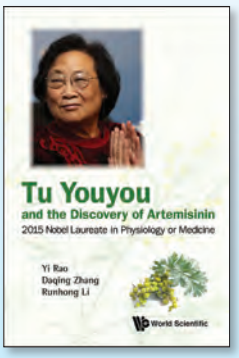
| **840pp** | **Feb 2022** | |
| **978-981-4277-97-6** | **US$198** | **£175** |

## TU YOUYOU AND THE DISCOVERY OF ARTEMISININ

*edited by* **Yi Rao, Daqing Zhang & Runhong Li** *(Peking University, China)*




***"The book's value lies in showing how groups of researchers, rather than mainly unnamed individuals, overcame the problems caused by rigid, centralised control in a country disrupted by the Cultural Revolution and with few sophisticated scientific resources."***

**British Society for the History of Medicine**

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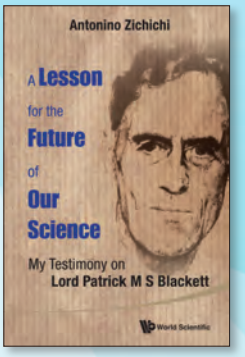
|---|---|---|
| **200pp** | **Nov 2016** | |
| **978-981-3109-88-9** | **US$68** | **£56** |
| **978-981-3109-89-6(pbk)** | **US$38** | **£32** |

## A LESSON FOR THE FUTURE OF OUR SCIENCE

### My Testimony on Lord Patrick M S Blackett

*by* **Antonino Zichichi** *(European Physical Society, Switzerland)*




This unique volume contains a tribute to Lord Patrick M S Blackett through the testimony of Professor Antonino Zichichi, who was one of Blackett's pupils in the experiment at the Sphinx Observatory, Europe's highest lab (3580 meters a.s.l.), at Jungfraujoch. The book presents an overview of Blackett's most significant discoveries, such as the so called "vacuum polarization" effect, the first example of "virtual physics" and the "strange particles", that opened a new horizon towards the existence of the subnuclear universe. The book also recalls his deep interest in the promotion of scientific culture. Blackett was firmly convinced that physicists must be engaged directly to let the people outside our labs know what the role of science is in the progress of our civilisation.

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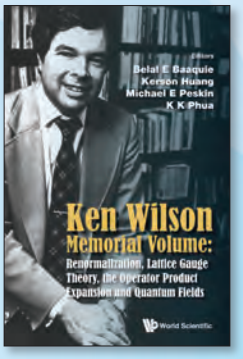
| **280pp** | **May 2016** | |
| **978-981-4719-67-4** | **US$58** | **£48** |
| **978-981-4719-41-4(pbk)** | **US$28** | **£23** |

## KEN WILSON MEMORIAL VOLUME

### Renormalization, Lattice Gauge Theory, the Operator Product Expansion and Quantum Fields

*edited by* **Belal E Baaquie** *(NUS, Singapore)*, **Kerson Huang** *(MIT)*, **Michael E Peskin** *(Stanford)* & **K K Phua** *(NTU, Singapore)*




***"A reading of selected parts sheds interesting light on a variety of complex topics in ways that are perhaps not so easily found in modern textbooks. I would suggest such a strategy to a philosopher or historian of science, or an undergraduate or graduate student in physics. The chapters are all well written, and whatever fraction is understood will prove valuable. The book is long, and not an easy read, but well worth the effort and I highly recommend it."***

**CERN Courier**

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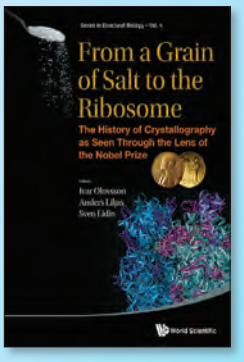
| **396pp** | **May 2015** | |
| **978-981-4619-21-9** | **US$86** | **£71** |
| **978-981-4619-22-6(pbk)** | **US$44** | **£37** |

Series in Structural Biology - Vol 4

## FROM A GRAIN OF SALT TO THE RIBOSOME

### The History of Crystallography as Seen Through the Lens of the Nobel Prize

*edited by* **Ivar Olovsson** *(Uppsala University, Sweden)*, **Anders Liljas** & **Sven Lidin** *(Lund University, Sweden)*




***"This book provides a vivid insight into the development of crystallography, and is certainly a valid tool for promoting our science and for showing our chemist, physicist, mineralogist, biologist and material scientist 'users' that we are constantly improving our tools in order to obtain a clearer picture of the structure of matter even in the most complicated cases."***

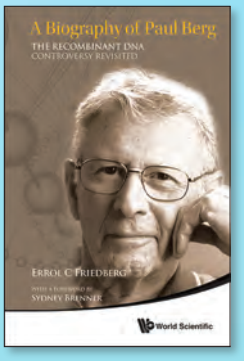
**Acta Crystallographica**

| | | |
|---|---|---|
| **536pp** | **Dec 2014** | |
| **978-981-4623-11-7** | **US$148** | **£123** |

## A BIOGRAPHY OF PAUL BERG

### The Recombinant DNA Controversy Revisited

*by* **Errol C Friedberg** *(University of Texas Southwestern Medical Center at Dallas, USA)*




***"The biography, on the whole, is very accessible. For readers who lived through the controversy, this work provides insight and access to details that were not likely available at the time, and for all readers, it is intriguing to witness the cascade of events leading up to this monumental time in the history of laboratory science and ethics."***

**The Quarterly Review of Biology**

**Readership:** Researchers, graduate students, undergraduates in life sciences, medicine and chemistry and interested lay public.

| | | |
|---|---|---|
| **444pp** | **Aug 2014** | |
| **978-981-4569-03-3** | **US$88** | **£73** |
| **978-981-4569-04-0(pbk)** | **US$34** | **£28** |

## NOBEL PRIZES AND NATURE'S SURPRISES

*by* **Erling Norrby** *(The Royal Swedish Academy of Sciences, Sweden)*


***"I particularly enjoyed Norrby's lengthy treatment of the 1962 chemistry prize — to James Watson, Francis Crick, and Maurice Wilkins, 1962 for their structural work on the structure of DNA … This well-referenced and copiously illustrated book, featuring meditations, poetry, quotations, and miscellaneous musings, is a true labour of love. I heartily recommend it to anyone interested in the history of scientific discovery, the personalities of those who pursue it, and how it actually happens and is received."***

**Chemistry & Industry**

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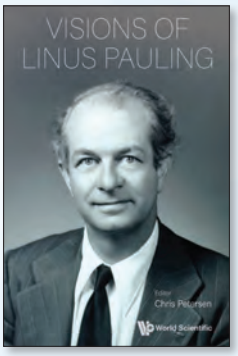
| **472pp** | **Dec 2013** | |
| **978-981-4520-98-0** | **US$98** | **£81** |
| **978-981-4520-99-7(pbk)** | **US$58** | **£38** |

## VISIONS OF LINUS PAULING




Edited by **Chris Petersen** *(Oregon State University, USA)*

***"Through their investigations, Petersen and his collaborators have uncovered new and fascinating information relating to all aspects of Pauling's amazing life and have explored the context in which the discoveries and activities took place. The pieces are well researched and extremely well written. I have no doubt that all people interested in 20th-century science and politics will find this insightful book irresistibly entertaining, enlightening, and educational."***

**Steve Lawson**
Former CEO, Linus Pauling Institute, USA

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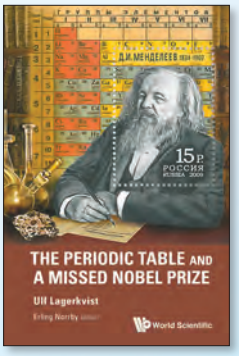
| **300pp** | **Sep 2022** | |
| **978-981-126-075-9** | **US$78** | **£60** |

## THE PERIODIC TABLE AND A MISSED NOBEL PRIZE




*by* **Ulf Lagerkvist**
*edited by* **Erling Norrby** *(The Royal Swedish Academy of Sciences)*

***"This is a fascinating account of how groundbreaking scientists think and work. This is the insider's view of the process and demands made on the experts of the Nobel Foundation who assess the originality and significance of research."***

**Professor Sir Aaron Klug**
Nobel Laureate
Order of Merit, Fellow of the Royal Society

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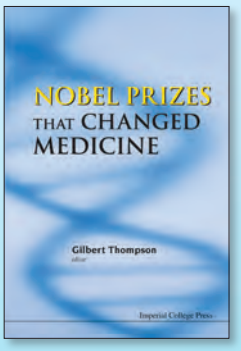
| **136pp** | **Aug 2012** | |
| **978-981-4295-95-6(pbk)** | **US$22** | **£18** |

## NOBEL PRIZES THAT CHANGED MEDICINE




*edited by* **Gilbert Thompson** *(Imperial College London)*

This book brings together in one volume fifteen Nobel Prize-winning discoveries that have had the greatest impact upon medical science and the practice of medicine during the 20th century and up to the present time. Its overall aim is to enlighten, entertain and stimulate.

**Readership:** Students, undergraduates, graduates, professionals and members of the general public interested in the impact of Nobel Prize-winning discoveries in medicine.

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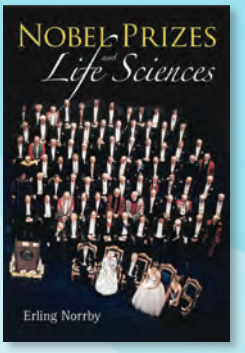
| **372pp** | **Dec 2011** | |
| **978-1-84816-825-1** | **US$126** | **£105** |
| **978-1-84816-826-8(pbk)** | **US$48** | **£40** |

## NOBEL PRIZES AND LIFE SCIENCES




*by* **Erling Norrby**
*(The Royal Swedish Academy of Sciences)*

***"The book focuses on selected topics rather than providing inventories and this makes it an especially enjoyable read … Norrby generously shared his knowledge and experience with us through this book, which I wholeheartedly recommend to all interested in how the Nobel recognition of discoveries and discoverers works."***

**Structural Chemistry**

| | | |
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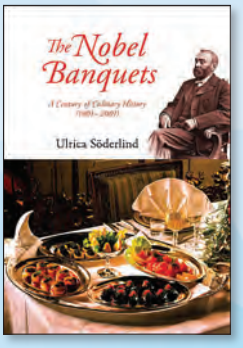
| **336pp** | **Sep 2010** | |
| **978-981-4299-36-7** | **US$68** | **£56** |
| **978-981-4299-37-4(pbk)** | **US$38** | **£32** |

## THE NOBEL BANQUETS
## A Century of Culinary History (1901–2001)




*by* **Ulrica Söderlind** *(Stockholm University)*
Translated from the Swedish by **Michael Knight**

***"This specialized historical narrative tracing the evolu-tion of the Nobel banquet and its menus will delight food historians, scientists, chefs, and trivia buffs alike."***

**Choice**

This comprehensive book presents not only all the known facts about the Nobel banquet menus but also many unknown details, both about the Nobel banquets themselves and about the traditional banquets held at the Royal Court by the King and Queen of Sweden on December 11 in honour of the laureates. *The Nobel Banquets* contains many photographs. It is a goldmine for gourmets and for anyone interested in knowing more about all the effort that goes into these fabulous festivities.

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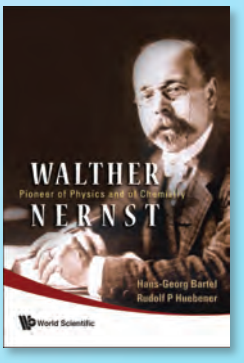
| **340pp** | **May 2010** | |
| **978-981-4313-11-7** | **US$78** | **£65** |
| **978-981-4317-97-9(pbk)** | **US$28** | **£23** |

## WALTHER NERNST
## Pioneer of Physics and of Chemistry




*by* **Hans-Georg Bartel** *(Humboldt University Berlin, Germany)*, **Rudolf P Huebener** *(Eberhard-Karls-University Tübingen, Germany)*

***"Particularly illuminating is the author's treatment of Nernst's professional relationships, which effectively illustrate his influential position in the German physical chemistry and physics communities … it will be of greatest benefit as a reference for historians already familiar with Nernst's work or those who wish to gain special insight into his process of discovery in developing the Nernst equation and the third law. The primary historical data presented here makes up a valuable picture of the German scientific community, portraying Nernst as an active, respected, prolific, and highly motivated researcher who came to define the scope of electrochemistry in its incipience."***

**Isis - a journal of the History of Science Society**

**Readership:** Students and scientists in the fields of physical chemistry, physics and chemistry, general readers.

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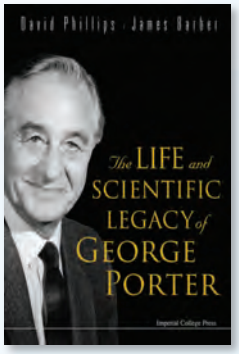
| **408pp** | **Oct 2007** | |
| **978-981-256-560-0** | **US$114** | **£95** |

## THE LIFE AND SCIENTIFIC LEGACY OF GEORGE PORTER

### The Recombinant DNA Controversy Revisited

*edited by* **David Phillips** & **James Barber** *(Imperial College London, UK)*




***"This book will be of interest to his colleagues and contemporaries in physical chemistry, and indirectly to historians via the first-hand attributions of Porter's influence. Between the lines, this book is a catalogue of the credentials of the great and the good of two generations in British chemistry."***

**AMBIX**

Sir George Porter (Lord Porter of Luddenham) was one of the most highly regarded and well-known scientists in Britain. He was appointed Director of the Royal Institution in 1966, awarded a Nobel Prize in Chemistry in 1967, and was the only Director of the Royal Institution to later become President of the Royal Society (1985-1990). Porter had a marvellous gift for communicating his infectious enthusiasm for science, and as President of the Royal Society, he worked hard to improve the status of science, and employed his communication skills ably in the defence of British science under attack from inadequate government funding, of which he was fiercely critical. In this volume, his peers, former colleagues, students and friends — themselves highly regarded and well known scientists in their own right — come together to honour and celebrate the enormous contributions of this man. They comment on their respective personal and working relationships with Porter and on his work.

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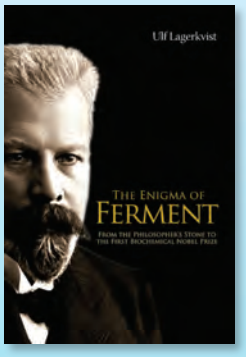
| **652pp** | **Jul 2006** | |
| **978-1-86094-660-8** | **US$208** | **£173** |
| **978-1-86094-695-0 (pbk)** | **US$48** | **£40** |

## THE ENIGMA OF FERMENT

### From the Philosopher's Stone to the First Biochemical Nobel Prize

*by* **Ulf Lagerkvist**




***"Lagerkvist has written a concise but highly informative and lucid history of the emergence of chemistry … For present-day scholars and students interested in the evolutionary emergence of modern biological sciences and medicine, The Enigma of Ferment is a highly recommended read."***

**Paul Berg**
Cahill Professor of Biochemistry, Emeritus
Stanford University School of Medicine

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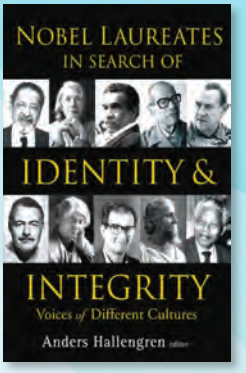
| **172pp** | **Nov 2005** | |
| **978-981-256-421-4(pbk)** | **US$24** | **£20** |

## NOBEL LAUREATES IN SEARCH OF IDENTITY AND INTEGRITY

### Voices of Different Cultures

*edited by* **Anders Hallengren** *(Stockholm University)*




In this collection of essays, biographies and Nobel lectures, ten Nobel Laureates from five continents give various and startling perspectives on current questions about modernity and tradition, unity and diversity, integration, identity, integrity, gender and sexual roles in a multicultural world of change. It is also a book on self-confidence and presents different ways to self-knowledge and cultural individuality.

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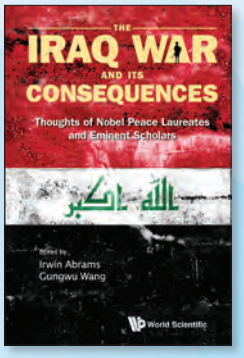
| **280pp** | **Jan 2005** | |
| **978-981-256-038-4** | **US$99** | **£82** |
| **978-981-256-074-2(pbk)** | **US$38** | **£32** |

Series on the Iraq War and Its Consequences – Vol. 1

## THE IRAQ WAR AND ITS CONSEQUENCES

### Thoughts of Nobel Peace Laureates and Eminent Scholars

*edited by* **Irwin Abrams** & **Gungwu Wang** *(East Asian Institute, NUS)*




***"This collection will satisfy both the professional academic and the average reader curious about the impact of the war on daily life … the editors have put together an intriguing collection of important voices to offer comfort and insight for those seeking to understand what has happened in Iraq and its implications for the future."***

**Friends Journal**

***"The initial chapters beautifully describe the evolution of the ideas that formed the basis not only of medical microbiologybut also of physiology and pathology … This book provides a series of portraits in which not only the achievements but additionally the failings are described, and effectively conjures up the academic milieu of the time."***

**Notes and Records of The Royal Society**

**Readership:** Microbiologists; medical researchers, undergraduates and graduate students in microbiology and the life sciences; general readers.

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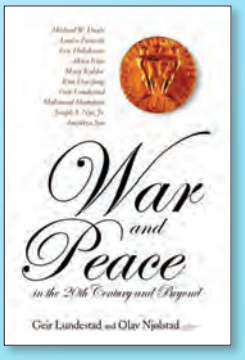
| **464pp** | **Dec 2003** | |
| **978-981-238-588-8** | **US$128** | **£84** |
| **978-981-238-590-1(pbk)** | **US$34** | **£28** |

## WAR AND PEACE IN THE 20TH CENTURY AND BEYOND

*edited by* **Geir Lundestad** & **Olav Njølstad**
*(The Norwegian Nobel Institute)*




***"This beautifully produced and edited volume presents a fascinating collection of essays structured around the objectives engendered by the awarding of the Nobel Peace Prize … this ensemble of contributions provides an excellent insight into the evolution of thinking about war and peace. As a reflection upon these crucial issues, it is readable, informative and highly recommended."***

**Journal of Peace Research**

**Readership:** Students, researchers, academics, politicians, journalists, and anyone interested in 20th century history and peace and conflict studies.

| | | |
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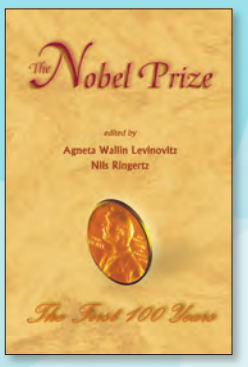
| **268pp** | **Mar 2003** | |
| **978-981-238-196-5** | **US$77** | **£73** |
| **978-981-238-197-2(pbk)** | **US$28** | **£23** |

## THE NOBEL PRIZE

### The First 100 Years

*edited by* **Agneta Wallin Levinovitz** *(Nobel Media AB)* & **Nils Ringertz**




***"This wonderful book gives a comprehensive review of the Nobel prizes awarded since 1901 … Reading the book is like reading a compressed history of humankind in the twentieth century. It shows how by and large the Nobel prizes have indeed tracked the epoch-making events in this turbulent century."***

**M Veltman**
Nobel Laureate in Physics, 1999

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| **248pp** | **Aug 2001** | |
| **978-981-02-4664-8** | **US$73** | **£61** |
| **978-981-02-4665-5(pbk)** | **US$35** | **£29** |

## Philip W Anderson (Nobel Laureate in Physics, 1977)


### PWA90: A Lifetime of Emergence

*edited by* **Premi Chandra**, **Piers Coleman**, **Gabi Kotliar** *(Rutgers University, USA)*, **Phuan Ong** *(Princeton)*, **Daniel L Stein** *(New York University, USA)* & **Clare Yu** *(UC Irvine)*

*PWA90: A Lifetime of Emergence* is a volume of original scientific essays and personal reminiscences of Philip W Anderson by experts in the field, that were presented as part of "PWA90: Emergent Frontiers of Condensed Matter" meeting held at Princeton in December 2013 to highlight Anderson's contributions to physics.

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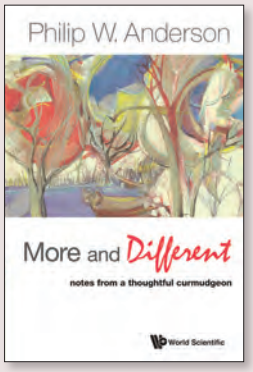
| 252pp | Feb 2016 | |
| 978-981-4733-61-8 | US$64 | £53 |
| 978-981-4733-62-5(pbk) | US$28.5 | £24 |




### More and Different
### Notes from a Thoughtful Curmudgeon

*by* **Philip W Anderson** *(Princeton)*

***"Anderson has put together an entertaining and instructive collection of highly readable reviews, columns, talks, and unpublished essays on science and the scientists he has known. He is rarely inappropriately provocative, and he is a pleasure to read."***

**Physics Today**

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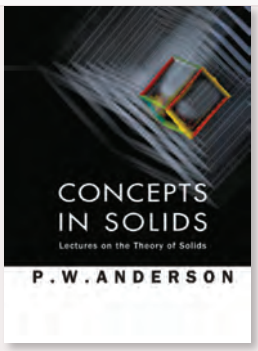
| 424pp | Sep 2011 | |
| 978-981-4350-12-9 | US$78 | £65 |
| 978-981-4350-13-6(pbk) | US$38 | £32 |

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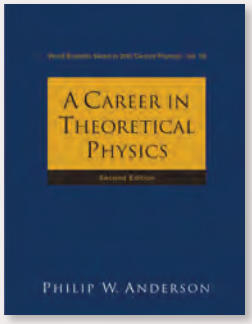
|---|---|---|
| 204pp | Nov 1997 | |
| 978-981-02-3195-8 | US$43 | £29 |
| 978-981-02-3231-3(pbk) | US$21 | £14 |

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|---|---|---|
| 884pp | Jan 2005 | |
| 978-981-238-865-0 | US$133 | £88 |
| 978-981-238-866-7(pbk) | US$58 | £38 |

## Arthur Ashkin (Nobel Laureate in Physics, 2018)

### OPTICAL TRAPPING AND MANIPULATION OF NEUTRAL PARTICLES USING LASERS
### A Reprint Volume with Commentaries

*by* **Arthur Ashkin** *(Former Head of Laser Science Research Department, Bell Laboratories, Lucent Technologies, USA)*

The author is the discoverer of optical trapping and optical tweezers. With his colleagues, he first demonstrated optical levitation, the trapping of atoms, and tweezer trapping and manipulation of living cells and biological particles.

This is the only review volume covering the many fields of optical trapping and manipulation. The intention is to provide a selective guide to the literature and to teach how optical traps really work.

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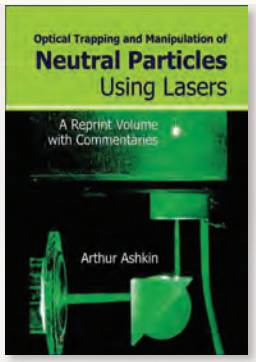
| 940pp | Jan 2007 | |
| 978-981-02-4057-8 | US$198 | £175 |
| 978-981-02-4058-5(pbk) | US$193 | £170 |




## Robert J Aumann (Nobel Memorial Prize in Economic Sciences, 2005)

World Scientific Series in Economic Theory

### INTERACTIVE EPISTEMOLOGY

by **Robert J Aumann** *(The Hebrew University of Jerusalem, Israel)*

With his 1976 paper, "Agreeing to Disagree", Robert Aumann pioneered the subject of interactive epistemology: the study of what people know, and what they know about what others know. Since then, the discipline has burgeoned enormously. This book documents Aumann's work leading to the 1976 paper and his subsequent contributions to the discipline. The scientific controversies emanating from his work are also included.

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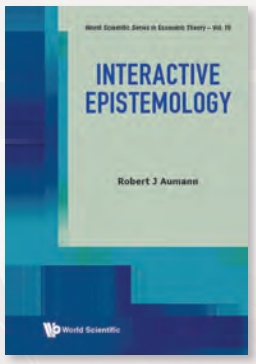
| 300pp | Sep 2022 | |
| 978-981-122-732-5 | US$98 | £85 |




World Scientific Series in Economic Theory

### SELECTED CONTRIBUTIONS TO GAME THEORY

by **Robert J Aumann** *(The Hebrew University, Israel)*

This book contains ten of his most important contributions to game theory, as selected by Eric Maskin, also a Nobel laureate.

**Readership:** For researchers and students in the fields of economics and game theory.

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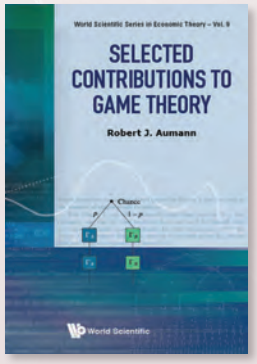
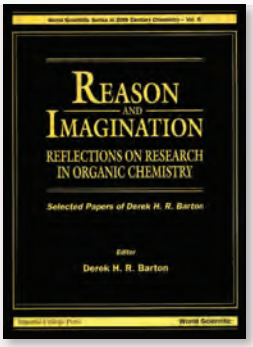
| 300pp | Jun 2022 | |
| 978-981-122-106-4 | US$108 | 95 |



## Sir Derek H R Barton (Nobel Laureate in Chemistry, 1969)




World Scientific Series in 20th Century Chemistry — Vol. 6

### REASON AND IMAGINATION
### Reflections on Research in Organic Chemistry
### Selected Papers of Derek H R Barton

*edited by* **Derek H R Barton**

***"The book is an excellent overview of his odyssey in organic chemistry, highlighting the major contributions he has made in the second half of this century."***

**Chemistry in Britain**

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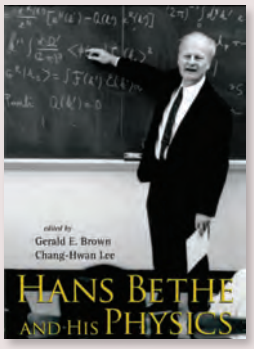
| **892pp** | **Mar 1996** | |
| **978-981-02-1361-9** | **US$149** | **£124** |
| **978-981-02-2596-4(pbk)** | **US$46** | **£38** |

## Hans A Bethe (Nobel Laureate in Physics, 1967)




### HANS BETHE AND HIS PHYSICS

*edited by* **Gerald E Brown** *(State University of New York, Stony Brook)* & **Chang-Hwan Lee** *(Pusan National University)*

*"This book does an admirable task in drawing a portrait of a great scientist and a great man. Bethe's power, in my experience, was that he could always readily get to the heart of a problem…The book is a 'must read' for every researcher and teacher of science."*

**CERN Courier**

This book contains discussions of Hans Bethe's work in solid state physics, nuclear physics and astrophysics. It explains his contributions as a science advisor and demonstrates his impact as a teacher and mentor to generations of young scientists.

**Readership:** Students, physicists and historians of science.

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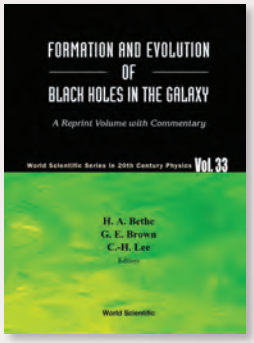
|---|---|---|
| **328pp** | **Jun 2006** | |
| **978-981-256-609-6** | **US$78** | **£65** |
| **978-981-256-610-2(pbk)** | **US$28** | **£23** |

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|---|---|---|
| **520pp** | **Mar 2003** | |
| **978-981-238-211-5** | **US$193** | **£127** |
| **978-981-238-250-4(pbk)** | **US$46** | **£30** |

### Selected Works of Hans A Bethe

| | | |
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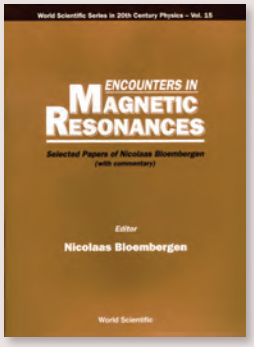
| **616pp** | **Jul 1997** | |
| **978-981-02-2876-7** | **US$119** | **£78** |

## Nicolaas Bloembergen (Nobel Laureate in Physics, 1981)

World Scientific Series in 20th Century Physics – Vol. 15

### ENCOUNTERS IN MAGNETIC RESONANCES
### Selected Papers of Nicolaas Bloembergen (With Commentary)

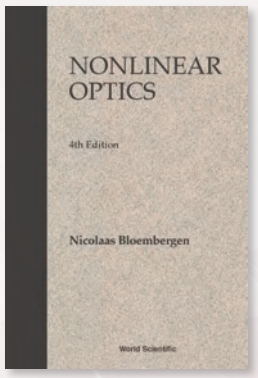
*edited by* **Nicolaas Bloembergen** *(University of Arizona)*




This book presents a selection of papers, written by Nicolaas Bloembergen and his associates during the years 1946–1962, on the subjects of nuclear magnetic relaxation, paramagnetic relaxation and masers, and magnetic resonance spectroscopy of solids. The volume begins with autobiographical notes to provide a personal historical background. Each paper is preceded by commentary with additional information regarding the early development of magnetic resonance in condensed matter. A reproduction of his Ph.D. thesis, "Nuclear Magnetic Relaxation", Leiden, 1948, is included in this volume.

**Readership:** Researchers of magnetic resonance and history of science.

| | | |
|---|---|---|
| **560pp** | **Mar 1996** | |
| **978-981-02-2505-6** | **US$145** | **£120** |
| **978-981-02-2590-2(pbk)** | **US$50** | **£46** |

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| **188pp** | **Jan 1996** | |
| **978-981-02-2598-8** | **US$49** | **£32** |
| **978-981-02-2599-5(pbk)** | **US$28** | **£18** |

### Encounters in Nonlinear Optics Selected Papers of Nicolaas Bloembergen (With Commentary)

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| **640pp** | **Sep 1996** | |
| **978-981-02-2549-0** | **US$135** | **£89** |
| **978-981-02-2591-9(pbk)** | **US$48** | **£32** |

## Baruch S Blumberg (Nobel Laureate in Physiology or Medicine, 1976)

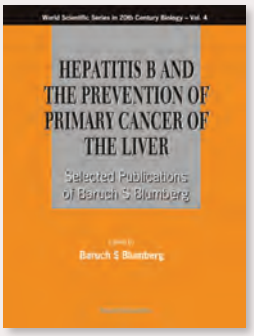
World Scientific Series in 20th Century Biology – Vol. 4

### HEPATITIS B AND THE PREVENTION OF PRIMARY CANCER OF THE LIVER
### Selected Publications of Baruch S Blumberg

*edited by* **Baruch S Blumberg**

This important book comprises a narrative account of research on the hepatitis B virus and selected reprints from the laboratory of Nobel laureate Baruch S Blumberg and his colleagues. The hepatitis B virus (HBV) is one of the ten most common deadly infectious diseases and is responsible for 1.1 million deaths a year worldwide.

**Readership:** Students in human biology and researchers in virology, vaccinology, genetics, anthropology, history & sociology of science, public health and the scientific method.

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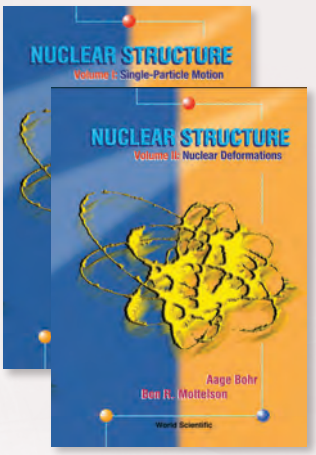
| **648pp** | **Nov 2000** | |
| **978-981-02-3217-7** | **US$167** | **£139** |

## Aage Niels Bohr & Ben Roy Mottelson (Nobel Laureates in Physics, 1975)

### NUCLEAR STRUCTURE
### Volume I: Single-Particle Motion
### Volume II: Nuclear Deformations

*by* **Aage Niels Bohr** *&* **Ben R Mottelson** *(Nordita, Copenhagen)*

These volumes present the basic features of nuclear structure in terms of an integration of collective and independent particle aspects and remain a foundation for current efforts in the field. Central to the book's value is an approach that recognizes the many connections between concepts of nuclear physics and those of other many-body systems, and that deals boldly with the interplay between theory and experiment.

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| **1256pp** | **Jan 1998** | |
| **978-981-02-3197-2 (Set)** | **US$210** | **£174** |

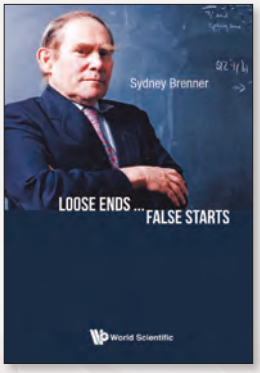
## Sydney Brenner (Nobel Laureate in Physiology or Medicine, 2002)

### LOOSE ENDS ... FALSE STARTS

by **Sydney Brenner**

***"Loose Ends ... False Starts captures Sydney's unique combination of wit, irreverence, and unparalleled knowledge of science and medicine: A genius at play."***

**Sir Keith Peters GBE FRCP FRS**
Emeritus Regius Professor of Physic
University of Cambridge

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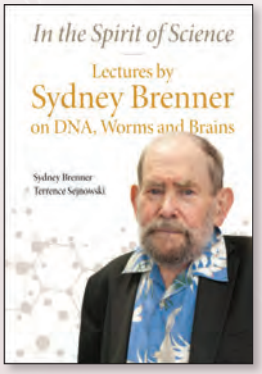
| **288pp** | **Jul 2019** | |
| **978-981-120-816-4** | **US$58** | **£50** |
| **978-981-120-817-1(pbk)** | **US$28** | **£25** |

### IN THE SPIRIT OF SCIENCE
### Lectures by Sydney Brenner on DNA, Worms and Brains

*By* **Sydney Brenner** *(A*STAR, Singapore),* **Terrence Sejnowski**
*(Salk Institute for Biological Studies, USA)*

In October 2017, Nobel laureate Sydney Brenner (Physiology or Medicine, 2002) gave four lectures on the history of Molecular Biology, its impact on Neuroscience and the great scientific questions that lie ahead. The recorded lectures are the basis for this book. It aims to preserve the history of molecular biology and to also raise scientific questions that have resulted from the work of Sydney, Terry and others. It should be read by everybody who is interested in the generation, history and impact of great ideas as recounted by one of the legends of 20th century science.

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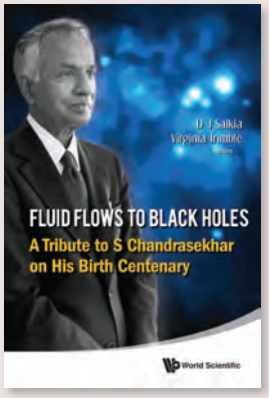
| **200pp** | **Aug 2018** | |
| **978-981-3271-73-9** | **US$68** | **£60** |

## Subrahmanyan Chandrasekhar (Nobel Laureate in Physics, 1983)

### FLUID FLOWS TO BLACK HOLES
### A Tribute to S Chandrasekhar on His Birth Centenary



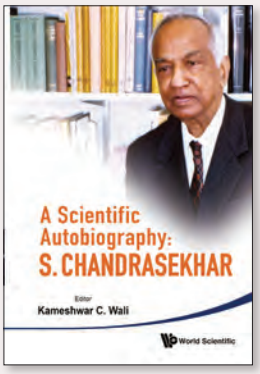

*edited by* **D J Saikia** *(Tata Institute of Fundamental Research)* & **Virginia Trimble** *(University of California, Irvine & Las Cumbres Observatory Global Telescope Network)*

***"This volume is a fitting tribute to S Chandrasekhar, one of the greatest astrophysicists of all time. It contains wonderful chapters, suitable for the casual reader, that describe Chandra the scientist, Chandra the warm human being, and Chandra's impact on science and on people.... I recommend this volume to the casual reader and the serious scientist alike."***

**Kip S Thorne,** California Institute of Technology

**Readership:** Physicists, astrophysicists, cosmologists and science historians.

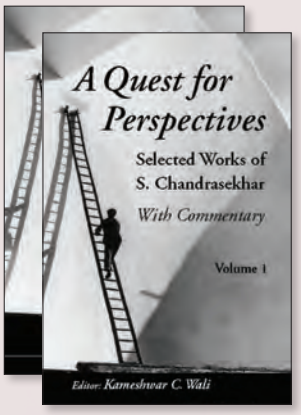
**312pp Dec 2011**
**978-981-4374-76-7 US$116 £96**




**296pp Jan 2011**
**978-981-4299-57-2 US$90 £59**
**978-981-4299-58-9(pbk) US$45 £29**

### A QUEST FOR PERSPECTIVES: Selected Works of S Chandrasekhar (With Commentary), In 2 Volumes

*edited by* **Kameshwar C Wali** *(Syracuse University)*

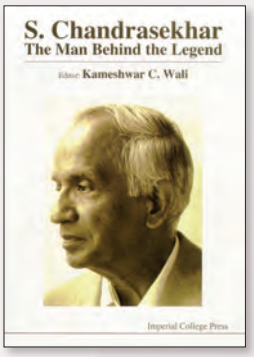



***"Wali's choices in these two volumes are a more selective and more interesting subset, picked as much to give a sense of the man as of the science ... Chandra's celebrated Reviews of Modern Physics article 'Stochastic Problems in Physics and Astronomy' (1943) alone is worth the price of the volume ... Fascinating also are the two 1953 papers by Chandra and Enrico Fermi, the writing of which Chandra later remembered as one of the most exciting experiences of his scientific career."***

**Physics Today**

**Readership:** Researchers in astronomy, astrophysics and cosmology.

**Set**
**1448ppSep 2001**
**978-1-86094-201-3 US$273 £227**
**978-1-86094-208-2(pbk) US$160 £113**




**236pp Nov 1997**
**978-1-86094-038-5 US$43 £29**


### S Chandrasekhar
### Selected Correspondence and Conversations

edited by **Kameshwar C Wali** *(Syracuse University, USA)*

**328pp Feb 2020**
**978-981-120-832-4 US$88 / £75**

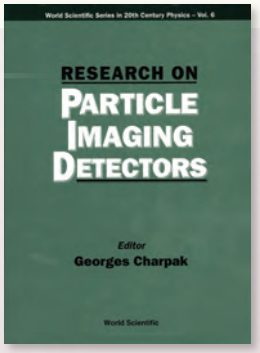
## Georges Charpak (Nobel Laureate in Physics, 1992)

World Scientific Series in 20th Century Physics – Vol. 6

### RESEARCH ON PARTICLE IMAGING DETECTORS

*edited by* **Georges Charpak**

Much instrumentation has been developed for imaging the trajectories of elementary particles produced in high energy collisions. Since 1968, gaseous detectors, beginning with multiwire chambers and drift chambers, have been used for the visualisation of particle trajectories and the imaging of X-rays, neutrons, hard gamma rays, beta rays and ultraviolet photons.
This book commemorates the groundbreaking research leading to the evolution of such detectors carried out at CERN by Georges Charpak, Nobel Prizewinner for Physics in 1992. Besides collecting his key papers, the book also includes original linking commentary which sets his work in the context of other worldwide research.



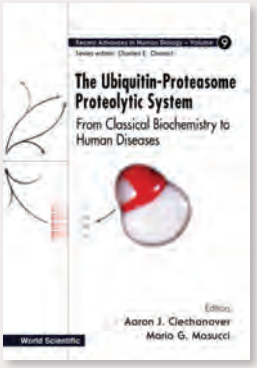

**688pp Jul 1995**
**978-981-02-1902-4 US$175 £145**
**978-981-02-1903-1(pbk) US$95 £79**

## Aaron J Ciechanover (Nobel Laureate in Chemistry, 2004)

Recent Advances in Human Biology – Vol. 9

### THE UBIQUITIN-PROTEASOME PROTEOLYTIC SYSTEM
### From Classical Biochemistry to Human Diseases

*edited by* **Aaron J Ciechanover** *(Technion-Israel Institute of Technology)*
& **Maria G Masucci** *(Karolinska Institute)*




***"The current volume will be of great interest to both students and workers in the field of human diseases and more specifically for people interested in the regulation of cell processes."***

**Cell Biochemistry and Function**

This book tells the story of the ubiquitin system as we currently know it: from the regulation of basic cellular processes to quality control and the pathogenetic mechanisms of disease, from X-ray crystallography of the 26S proteasome to the interaction between substrates and their ligases, to the development of mechanism-based drugs, and to target-specific aberrant processes.

**Readership:** Medical and biomedical students from the undergraduate to the graduate level, academics/lecturers and biomedical companies.

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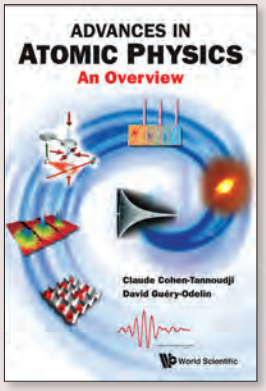
| **240pp** | **Nov 2002** | |
| **978-981-238-100-2** | **US$95** | **£79** |

## Claude Cohen-Tannoudji (Nobel Laureate in Physics, 1997)

### ADVANCES IN ATOMIC PHYSICS
### An Overview

*by* **Claude Cohen-Tannoudji** *(Collège de France & Laboratoire Kastler Brossel)*
& **David Guéry-Odelin** *(Laboratoire Collisions Agrégats Réactivité)*




***"French Nobel Laureate Claude Cohen-Tannoudji is second to none in his understanding of the modern theory and application of atom-photon interactions. He is also known for his lucid and accessible writing style … Advances in Atomic Physics is an impressive and wonderful-to-read reference text … Certainly researchers in the fields of atom-photon interactions and atom traps will want it as a reference on their bookshelves … A selection of chapters may be of benefit to students: the early chapters for those entering the field, the later chapters for those already doing atom-laser PhD thesis work."***

**Physics Today**

This book presents a comprehensive overview of the spectacular advances seen in atomic physics during the last 50 years. The authors explain how such progress was possible by highlighting connections between developments that occurred at different times. They discuss the new perspectives and the new research fields that look promising. The emphasis is placed, not on detailed calculations, but rather on physical ideas.

**Readership:** Graduate students, researchers and academics interested in quantum and atomic physics.

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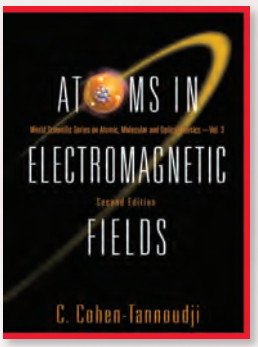
| **796pp** | **Sep 2011** | |
| **978-981-277-496-5** | **US$105** | **£87** |
| **978-981-277-497-2(pbk)** | **US$51** | **£42** |

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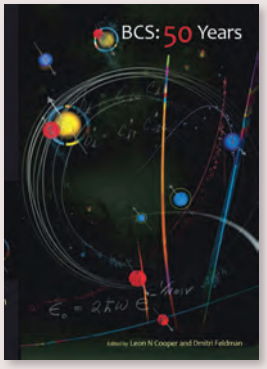
| **768pp** | **Nov 2004** | |
| **978-981-238-942-8** | **US$174** | **£115** |
| **978-981-256-019-3(pbk)** | **US$58** | **£38** |

## Leon N Cooper (Nobel Laureate in Physics, 1972)

### BCS: 50 YEARS

*edited by* **Leon N Cooper** & **Dmitri Feldman** *(Brown University)*




**Named One of the Top Five Books of 2011 by *Physics Today***

***"... the editors deserve praise for the selection of topics and for enlisting a distinguished set of authors. BCS: 50 Years is a successful attempt to capture the history of the development of superconductivity theory and its continuing impact. Any person curious about superconductivity will find something in this book to enjoy."***

**Physics Today**

The BCS theory of superconductivity developed in 1957 by Bardeen, Cooper and Schrieffer has been remarkably successful in explaining the properties of superconductors. In addition, concepts from BCS have been incorporated into diverse fields of physics, from nuclear physics and dense quark matter to the current standard model. Practical applications include SQUIDs, magnetic resonance imaging, superconducting electronics and the transmission of electricity. This invaluable book is a compilation of both a historical account and a discussion of the current state of theory and experiment.

With contributions from many prominent scientists, it aims to introduce students and researchers to the origins, the impact and the current state of the BCS theory.

**Readership:** Students, researchers and academics interested in BCS theory and its origin.

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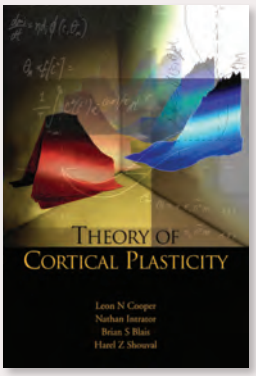
| **588pp** | **Nov 2010** | |
| **978-981-4304-64-1** | **US$135** | **£112** |
| **978-981-4304-65-8(pbk)** | **US$48** | **£40** |

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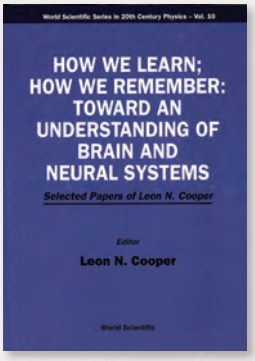
| **332pp** | **Apr 2004** |
| **978-981-238-746-2** | **US$145 £96** |
| **978-981-238-791-2(pbk)** | **US$48 £32** |

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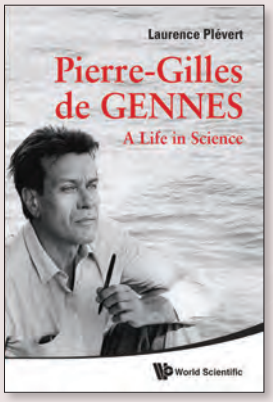
| **404pp** | **Sep 1995** |
| **978-981-02-1814-0** | **US$129 £85** |
| **978-981-02-1815-7(pbk)** | **US$58 £38** |

## Pierre-Gilles de Gennes (Nobel Laureate in Physics, 1991)

### PIERRE-GILLES DE GENNES
### A Life in Science

*by* **Laurence Plévert**




***"A well-deserved tribute to the life and work of an astonishingly versatile and inventive physicist, based on many conversations with him before his untimely death in 2007."***

**Vinay Ambegaokar**
Cornell University

Laurence Plévert's fascinating work retraces the influences and experiences that moulded this complex, charismatic, charming and eclectic genius. It follows him from his unconventional childhood on the fringes of the old French aristocracy and in war-divided France, through his glittering school and early scientific career, up to the revolutionary breakthroughs in fields as diverse as superconductivity, liquid crystals, polymers and soft matter, culminating in the final consecration of the Nobel prize. Constructed from exclusive interviews with the physicist himself, his family, friends and colleagues, this biography immerses us in the work and character of a truly remarkable figure, a Renaissance man of the 20th century.

**Readership:** For all science enthusiasts and general readers.

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| **372pp** | **Oct 2011** | |
| **978-981-4355-25-4(pbk)** | **US$48** | **£39** |


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| **200pp** | **Jul 2009** |
| **978-981-4273-80-0** | **US$48 £32** |


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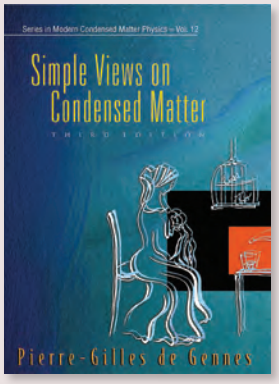
| **180pp** | **Jul 2009** |
| **978-981-4280-63-1** | **US$48 £32** |

## Pierre-Gilles de Gennes (Nobel Laureate in Physics, 1991)

Series in Modern Condensed Matter Physics – Vol. 12

### SIMPLE VIEWS ON CONDENSED MATTER
### Third Edition

*by* **Pierre-Gilles de Gennes**




**Reviews of the first edition:**

***"This book collects a series of articles in which problems which had always been thought quite intractable are shown to be solved by simple, but clear thinking. Although the phrase 'simple views' is justified by the clarity of de Gennes' exposition, the problems had been unresolved for decades and it is a tribute to de Gennes' intuitive skill that he has been able to solve so many problems which are not only deep basic science, but also central in modern technology."***

**Sam Edwards**
University of Cambridge

***"For amateurs and connoisseurs — interested in physics, chemistry or biology — Pierre-Gilles de Gennes has opened his gentry-style cabinet de curiosités. Miscellaneous products of his inventive industry, including the famous and the unfamous, are brought together in this self-selected collection, accompanied with recent hindsightful remarks of the Nobel laureate."***

**Gérard Toulouse**
École Normale Supérieure

**Readership:** Physicists, chemists, hydrodynamicists and materials scientists.

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| **576pp** | **Apr 2003** | |
| **978-981-238-278-8** | **US$135** | **£112** |
| **978-981-238-282-5(pbk)** | **US$48** | **£40** |


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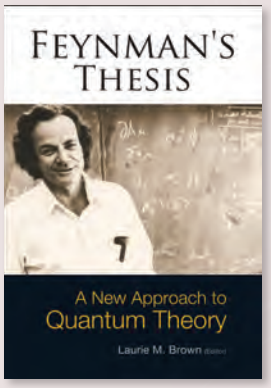
| **80pp** | **Oct 2004** |
| **978-981-256-011-7(pbk)** | **US$28 £18** |

## Richard Feynman (Nobel Laureate in Physics, 1965)

### FEYNMAN'S THESIS — A NEW APPROACH TO QUANTUM THEORY

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




***"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 … I recommend the book to anyone who would like to 'peep over the shoulder' of one of the 20th century's great physicists at work."***

**CERN Courier**

***"R Feynman was an excellent writer and it is a joy to read his dissertation … The reprints in this booklet are historical corner-stones in the development of modern theoretical physics, very interesting and still very well readable."***

**Zentralblatt MATH**

Richard Feynman's never previously published doctoral thesis formed the heart of much of his brilliant and profound work in theoretical physics. Entitled "The Principle of Least Action in Quantum Mechanics," its original motive was to quantize the classical action-at-a-distance electrodynamics. Because that theory adopted an overall space–time viewpoint, the classical Hamiltonian approach used in the conventional formulations of quantum theory could not be used, so Feynman turned to the Lagrangian function and the principle of least action as his points of departure.

The present volume includes Feynman's Princeton thesis, the related review article "Space–Time Approach to Non-Relativistic Quantum Mechanics" [*Reviews of Modern Physics* 20 (1948), 367–387], Paul Dirac's seminal paper "The Lagrangian in Quantum Mechanics" [*Physikalische Zeitschrift der Sowjetunion*, Band 3, Heft 1 (1933)], and an introduction by Laurie M Brown.

**Readership:** Physicists, researchers and postgraduates.

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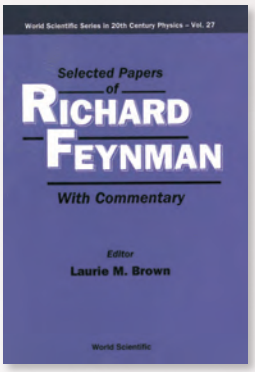
| **144pp** | **Aug 2005** | |
| **978-981-256-366-8** | **US$39** | **£26** |
| **978-981-256-380-4(pbk)** | **US$19** | **£16** |

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| **1012pp** | **Oct 2000** |
| **978-981-02-4130-8** | **US$180 £119** |
| **978-981-02-4131-5(pbk)** | **US$48 £32** |

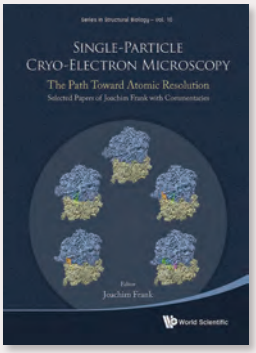
## Joachim Frank (Nobel Laureate in Chemistry, 2017)

Series in Structural Biology - Volume 10

### SINGLE-PARTICLE CRYO-ELECTRON MICROSCOPY
### The Path Toward Atomic Resolution/ Selected Papers of Joachim Frank with Commentaries

Edited by **Joachim Frank** (*Columbia University, USA*)

The book reproduces 55 of more than 300 articles written by the author, representing milestones in methods development of single-particle cryo-EM as well as important results obtained by this technique in the study of biological macromolecules and their interactions. It presents in one place a number of articles containing key advances in mathematical and computational methods leading up to the present time. Secondly, the development of the technique over the years is reflected by ever-expanding discoveries in the field of ribosome structure and function. Thirdly, as all histories of ideas, the history of concepts pertaining to this new method of visualization is fascinating all in itself.

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| **580pp** | **Apr 2018** | |
| **978-981-3234-85-7** | **US$198** | **£174** |

## Kenichi Fukui (Nobel Laureate in Chemistry, 1981)

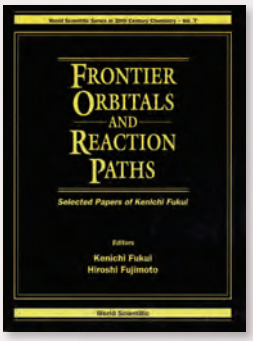
World Scientific Series in 20th Century Chemistry – Vol. 7

### FRONTIER ORBITALS AND REACTION PATHS
### Selected Papers of Kenichi Fukui

*edited by* **Kenichi Fukui** & **Hiroshi Fujimoto** *(Kyoto University)*

This book is a collection of selected papers on the Frontier Orbital Theory by Nobel Laureate Kenichi Fukui, with introductory notes. It provides the basic concept and formulation of the theory, and the physical and chemical significance of the frontier orbital interactions in chemistry, together with many practical applications.

**Readership:** Theoretical and physical chemists.

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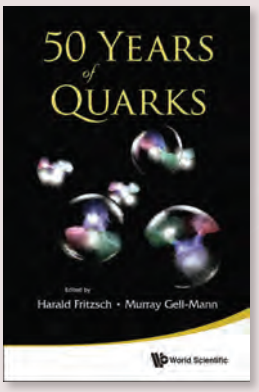
| **564pp** | **Nov 1997** | |
| **978-981-02-2241-3** | **US$151** | **£125** |

## Murray Gell-Mann (Nobel Laureate in Physics, 1969)

### 50 YEARS OF QUARKS

*edited by* **Harald Fritzsch** *(Ludwig Maximilian University of Munich, Germany)*
& **Murray Gell-Mann** *(Santa Fe Institute, USA)*




***"Harald Fritzsch and Murray Gell-Mann, the two fathers of quantum chromodynamics, look back at the events that led to the discovery, and eventually acceptance, of quarks as constituent particles ... it is always worthwhile to reminisce about those times when theoretical physicists were truly eclectic, these stories are the testimony of a very active era, in which theoretical and experimental discoveries rapidly chased one another ... The closing contributions of the book put this venture in the context of today's high-energy physics programme, and make a connection to the most popular ideas in high-energy physics today, including supersymmetry, unification and string theory."***

**CERN Courier**

**Readership:** Academics and researchers interested in elementary particle physics.

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| **516pp** | **May 2015** | |
| **978-981-4618-09-0** | **US$118** | **£98** |
| **978-981-4618-10-6(pbk)** | **US$48** | **£40** |


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| **464pp** | **Feb 2010** | |
| **978-981-283-684-7** | **US$105** | **£87** |
| **978-981-4261-62-3(pbk)** | **US$48** | **£40** |

## Ivar Giaever (Nobel Laureate in Physics, 1973)

### "I AM THE SMARTEST MAN I KNOW"
### A Nobel Laureate's Difficult Journey

*by* **Ivar Giaever** *(Applied BioPhysics, Inc., USA)*

***"There is a plethora of anecdotes that provide fascinating insight into a person who has made the most of his life."***

**CERN Courier**

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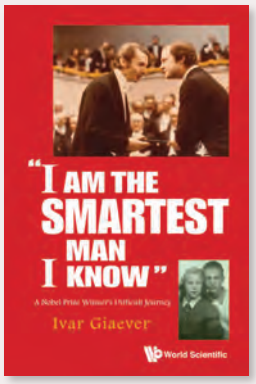
| **250pp** | **Nov 2016** | |
| **978-981-3109-17-9** | **US$55** | **£46** |
| **978-981-3109-18-6(pbk)** | **US$28** | **£23** |




## Walter Gilbert (Nobel Prize in Chemistry, 1980)

### WALTER GILBERT
### Selected Works

*by* **Walter Gilbert** *(Harvard University, USA)* |
*edited by* **Manyuan Long** *(The University of Chicago, USA)*

The book presented a complete collection of the works selected by Walter Gilbert. The photos and images collected by Gilbert and his students are precious to the understanding of important events in the history of molecular biology

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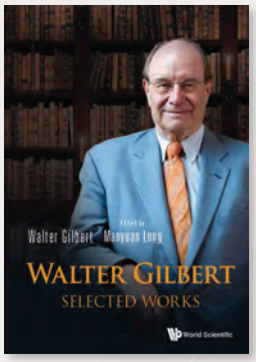
| **616pp** | **Feb 2020** | |
| **978-981-120-329-9** | **US$198** | **£175** |




## Vitaly L Ginzburg (Nobel Laureate in Physics, 2003)

### SUPERCONDUCTIVITY (Revised Edition)

*by* **V L Ginzburg** & **E A Andryushin** *(P N Lebedev Physics Institute)*

***"First written in 1989, this non-technical introduction to superconductivity has now been published as a revised edition. Written in a lively style, the book provides an excellent background for students at school or college, without recourse to mathematics."***

**CERN Courier**

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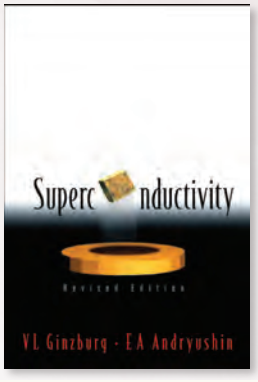
|---|---|---|
| **104pp** | **Oct 2004** | |
| **978-981-238-913-8** | **US$29** | **£24** |




## David Gross (Nobel Laureate in Physics, 2004)

### THE QUANTUM STRUCTURE OF SPACE AND TIME
### Proceedings of the 23rd Solvay Conference on Physics

Brussels, Belgium, 1 – 3 December 2005

*edited by* **David Gross** *(Kavli Institute, University of California, Santa Barbara),*
**Marc Henneaux** *(Université Libre de Bruxelles & International Solvay Institutes)*
& **Alexander Sevrin** *(Vrije Universiteit Brussel & International Solvay Institutes)*

These proceedings give a broad overview with unique insight into the most fundamental issues raised by this challenge for 21st century physics, by distinguished renowned scientists. The contributions cover: the status of quantum mechanics, spacetime singularities and breakdown of classical space and time, as well as cosmology and the cosmological constant puzzle.

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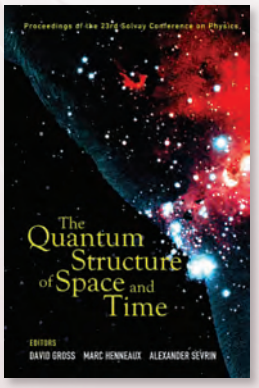
| **292pp** | **Jan 2007** | |
| **978-981-256-952-3** | **US$180** | **£149** |
| **978-981-256-953-0(pbk)** | **US$46** | **£38** |



## Sir John B. Gurdon (Nobel Laureate in Physiology or Medicine, 2012)

### WOLF PRIZE IN MEDICINE 1978 – 2008
### In 2 Volumes (With CD-ROM)

*edited by* **Sir John Gurdon** *(Cambridge University, UK)*

This volume provides a historical account of the recipients of the Wolf Prize in Medicine and includes their curriculum vitae and examples of their most significant publications. Altogether, 25 Wolf Prize recipients are included.A unique, important book for professionals, science historians and the general public, this book gives ready access to materials which have been important in the recognition of its recipients. Many recipients have extensive publication lists; it is valuable to have a concise account of their curriculum vitae as well as list of publications, and especially a reprint of the most significant publications that have resulted in them being awarded the Wolf Prize.

**Readership:** Professionals, science historians and the general public.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| **1268pp** | **Mar 2012** | |
| **978-981-4291-73-6(Set)** | **US$364** | **£302** |

## Lars Peter Hansen (Nobel Laureate in Economic, 2013) & Thomas J Sargent (Nobel Laureate in Economic Sciences, 2011)

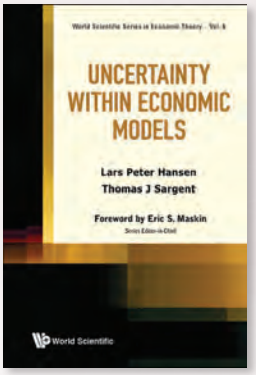
World Scientific Series in Economic Theory - Vol 6

### UNCERTAINTY WITHIN ECONOMIC MODELS

*by* **Lars Peter Hansen** *(University of Chicago, USA)*
& **Thomas J Sargent** *(New York University, USA & Hoover Institution, USA)*

***"This book will be useful for those who deal with econometrics, macroeconomics, and economic models and study uncertainty."***

**Zentralblatt MATH**

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| **484pp** | **Nov 2014** | |
| **978-981-4578-11-0** | **US$98** | **£81** |

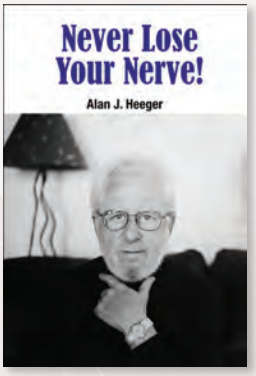
## Alan J Heeger (Nobel Laureate in Chemistry, 2000)

### NEVER LOSE YOUR NERVE!

*by* **Alan J Heeger** *(UC Santa Barbara)*

***"A wonderful tale of a brilliant man's journey from a small town in northwest Iowa to Stockholm and the King of Sweden. This book is also a love story covering with great joy and humor Alan and Ruth's multifaceted life together. Never Lose Your Nerve! tells us how to appreciate good fortune and handle adversity. A must read for its insights into a scientific mind and a world view reflecting the power of intellect and optimism. This man of grace with a sense of the ridiculous teaches us how scientific genius soars and how love keeps it grounded."***

**Ambassador Shirin Tahir-Kheli**




**Readership:** General public, historians, scientists, educators, undergraduates and graduates, biographers.

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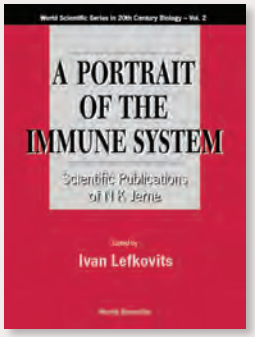
| **288pp** | **Dec 2015** | |
| **978-981-4704-85-4** | **US$58** | **£48** |
| **978-981-4704-86-1(pbk)** | **US$28** | **£23** |

## Niels K Jerne (Nobel Laureate in Physiology or Medicine, 1984)

World Scientific Series in 20th Century Biology – Vol. 2

### A PORTRAIT OF THE IMMUNE SYSTEM
### Scientific Publications of N K Jerne

*edited by* **Ivan Lefkovits** *(Basel Institute for Immunology)*




***"This volume will be welcomed by the whole immunological community ... His exceptional personality and his capacity for original thinking, have made an enormous impact on modern immunology."***

**Immunological Investigation**

Using the published work of Nobel Laureate Niels Kaj Jerne, this book shows how he developed his ideas. His selection theory, his view of how immunological diversity is created, and his concept of lymphocytes interacting as a network, reveals Jerne's revolutionary spirit.

**Readership:** Biological scientists, immunologists and medical doctors.

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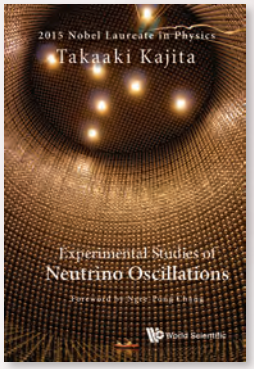
| **878pp** | **Dec 1996** | |
| **978-981-02-2605-3** | **US$211** | **£175** |
| **978-981-02-2614-5(pbk)** | **US$68** | **£56** |

## Takaaki Kajita (Nobel Laureate in Physics, 2015)

### EXPERIMENTAL STUDIES OF NEUTRINO OSCILLATIONS

*by* **Takaaki Kajita** *(2015 Nobel Laureate)*




This volume of collected works of Kajita on neutrino oscillations provides a good glimpse into the rise of Asian research in the frontiers of neutrino physics. Japan is now a major force in the study of the three families of neutrinos. Much remains to be done to clarify the Dirac vs. Majorana nature of the neutrino, and the cosmological implications of the neutrino. The collected works of Kajita and his Super-Kamiokande group will leave an indelible footprint in the history of big and better science.

*Copyright of the cover image belongs to Kamioka Observatory, ICRR (Institute for Cosmic Ray Research), The University of Tokyo.*

**Readership:** Graduate students and researchers in particle physics.

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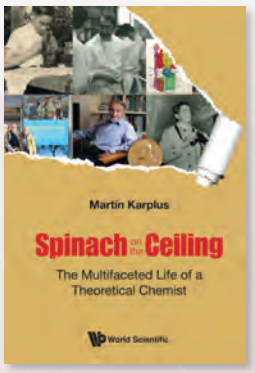
| **108pp** | **Mar 2016** | |
| **978-981-4759-15-1** | **US$38** | **£32** |
| **978-981-4759-26-7(pbk)** | **US$18** | **£15** |

## Martin Karplus (Nobel Laureate in Chemistry, 2013)

### SPINACH ON THE CEILING
### The Multifaceted Life of a Theoretical Chemist

*by* **Martin Karplus** *(Harvard University, USA & Université de Strasbourg, France)*




***"Karplus's tales of a turbulent graduate school experience at Caltech will inspire readers to muster fortitude when everything seems to be spinning out of control.***

***Karplus balances rigorous scientific discussions with refreshing chapters expounding his passion for photography and gastronomy."***

**Nature Chemistry**

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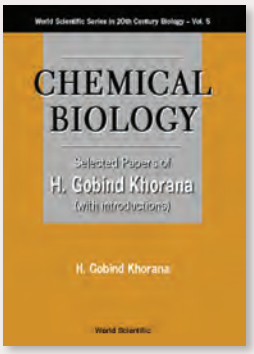
| **312pp** | **Jul 2020** | |
| **978-1-78634-802-9** | **US$88** | **£75** |
| **978-1-78634-806-7(pbk)** | **US$38** | **£25** |

## H Gobind Khorana (Nobel Laureate in Physiology or Medicine, 1968)

World Scientific Series in 20th Century Biology – Vol. 5

### CHEMICAL BIOLOGY
### Selected Papers of H Gobind Khorana (with Introductions)

*by* **H Gobind Khorana**




***"… Only in this beautifully organized and illustrated volume can one find such a lively synthesis of these disciplines from the first synthesis of a gene to the mechanism in bioenergetics."***

**Arthur Kornberg**
Emeritus Professor of Biochemistry
Stanford University School of Medicine

**Readership:** Researchers and students in organic chemistry, biochemistry, biophysics, molecular genetics and biotechnology.

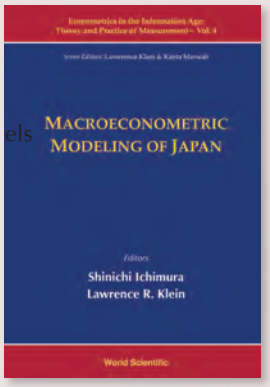
**632pp** **May 2000**
**978-981-02-3331-0** **US$185 £154**

## Lawrence R Klein (Nobel Laureate in Economic Sciences, 1980)

Econometrics in the Information Age: Theory and Practice of Measurement – Vol. 4

### MACROECONOMETRIC MODELING OF JAPAN

*edited by* **Shinichi Ichimura** *(Kyoto University)* & **Lawrence R Klein** *(University of Pennsylvania)*



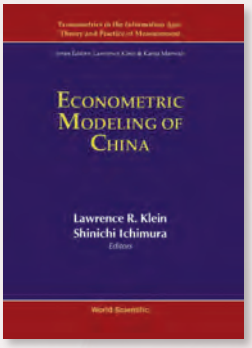

This book offers the representative macroeconometric models their applications for the Japanese economy in different development stages throughout the postwar years up to the present. It presents a summary of three types of macroeconometrics models and analyses:

- Social accounting analyses of national income and related indices — following the tradition of C Clark, S Kuznets, R Stone and World Bank Development Reports;
- Inter-industrial and inter-regional analyses of the Japanese economy *a la* W Leontief and the CGE (computable general equilibrium) type of applications to Comprehensive Development Plans;
- Macroeconometric model building for the Japanese economy

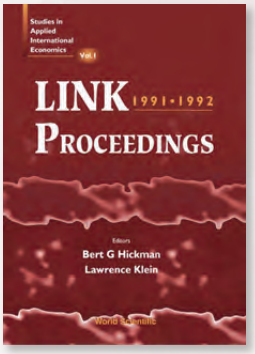
and its applications with a survey of various models in Japan, including the historic Osaka University ISER (Institute of Social and Economic Research) model and present day government models.

**Readership:** Academics in Asian economies and development economics; government leaders; business leaders.

**492pp** **Aug 2010**
**978-981-283-461-4** **US$155 £129**




**392pp** **Oct 2000**
**978-981-02-4383-8** **US$119 £78**

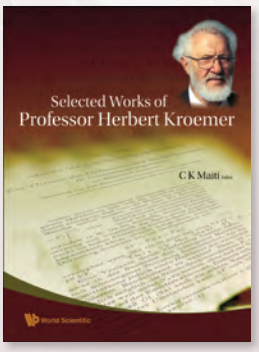



**364pp** **Oct 1998**
**978-981-02-3234-4** **US$105 £69**

## Herbert Kroemer (Nobel Laureate in Physics, 2000)

### SELECTED WORKS OF PROFESSOR HERBERT KROEMER

*edited by* **C K Maiti** *(Indian Institute of Technology, Kharagpur)*




This reprint collection brings together Professor Kroemer's most important papers, presenting a comprehensive perspective of the field. It covers topics ranging from substrate materials, electronic properties, process technology, and devices, to circuits and applications. This reprint collection will help the reader identify the key stages in the development of heterostructure devices and lasers from early research through to its integration in current manufacturing. Devoted to R&D engineers and scientists who are actively involved in extending the nano- and microelectronics roadmap mainly via heterostructure engineering, this volume may also serve as a reference for postgraduate and research students.

**Readership:** Graduate students and researchers in nano- and microelectronics.

**384pp** **May 2008**
**978-981-270-901-1** **US$192 £159**

## Rita Levi-Montalcini (Nobel Laureate in Physiology or Medicine, 1986)

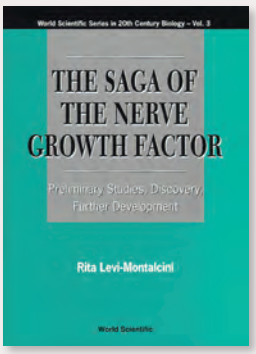
World Scientific Series in 20th Century Biology – Vol. 3

### THE SAGA OF THE NERVE GROWTH FACTOR
### Preliminary Studies, Discovery, Further Development

*by* **Rita Levi-Montalcini** *(University of Washington, St. Louis)*

This volume is a collection of articles written by Nobel Laureate Rita Levi-Montalcini and published from 1942 to 1995. Studies described in the first part set the stage for the discovery of a protein molecule which became known as the Nerve Growth Factor (NGF), described in detail in the second part. Studies pursued in subsequent years and still in progress, have unveiled other fundamental properties of the NGF, described in the third part of this volume.

**Readership:** Students and researchers in biology, developmental neurobiology, biochemistry and medicine.




**500pp** **Apr 1997**
**978-981-02-2604-6** **US$148 £123**

## Harry M Markowitz (Nobel Laureate in Economic Sciences, 1990)

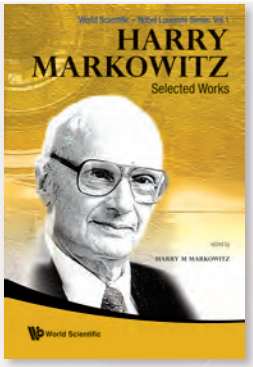
World Scientific – Nobel Laureate Series – Vol. 1

### HARRY MARKOWITZ
### Selected Works

*edited by* **Harry M Markowitz** *(University of California, San Diego)*

***"…. The book always reminds me of the joy that comes from wide-ranging curiosity, contemplation, playfulness, critical thinking, and plain old hard work."***

**Quantitative Finance**



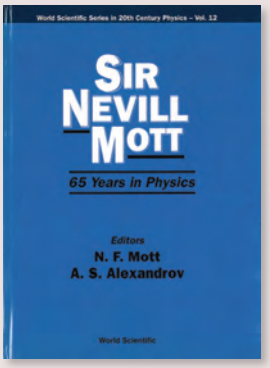

**716pp** **Mar 2009**
**978-981-283-363-1** **US$182 £151**

## Sir Nevill F Mott (Nobel Laureate in Physics, 1977)

World Scientific Series in 20th Century Physics – Vol. 12

### SIR NEVILL MOTT — 65 YEARS IN PHYSICS

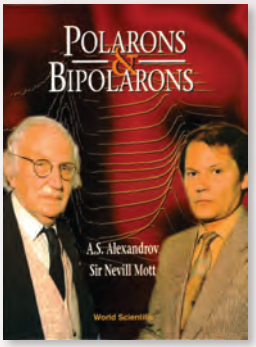
*edited by* **N F Mott** & **A S Alexandrov** *(University of Cambridge)*




This volume contains a discriminating selection of papers with commentaries by one of the most creative theoretical physicists of our century, Sir Nevill Mott. His pioneering contributions (1928 – 1993) include Fermi liquid theory, metal-insulator transition, the theory of noncrystalline materials, high-temperature super-conductivity and many other discoveries.

**Readership:** Physicists and materials scientists.

**752pp** **Aug 1995**
**978-981-02-2237-6** **US$129 £107**
**978-981-02-2252-9(pbk)** **US$58 £48**




**204pp** **Jan 1996**
**978-981-02-2298-7** **US$54 £36**

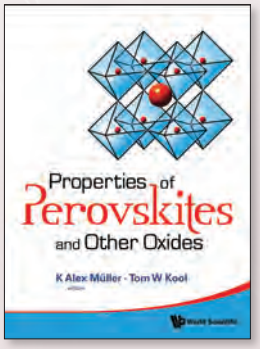
## K Alexander Müller (Nobel Laureate in Physics, 1987)

### PROPERTIES OF PEROVSKITES AND OTHER OXIDES

*edited by* **K Alex Müller** *(University of Zürich)* & **Tom W Kool** *(University of Amsterdam)*

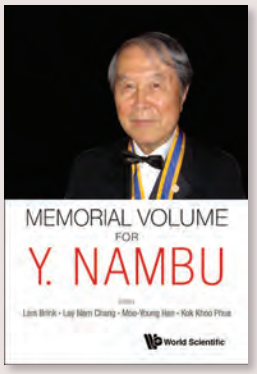
***"This collection of reprints allows the reader to chart the course of Müller's scientific development, from his early papers in the late 1950s all the way to high-temperature superconductivity in 1985 … A particular highlight is Müller's work on the Jahn-Teller effect … written in 1967 and appearing only as an article in a conference proceedings is a gem. Other treasures include the reviews on structural phase transitions (from 1981 and 1991, respectively) that are otherwise only obtainable in specialist books."***

**Contemporary Physics**




**584pp** **May 2010**
**978-981-4293-35-8** **US$138 £115**
**978-981-4317-69-6(pbk)** **US$58 £48**

## Yoichiro Nambu (Nobel Laureate in Physics, 2008)




### MEMORIAL VOLUME FOR Y. NAMBU

*edited by* **Lars Brink** *(Chalmers University of Technology, Sweden)*, **Lay Nam Chang** *(Virginia Tech, USA)*, **Moo-Young Han** *(Duke University, USA)* & **Kok Khoo Phua** *(NTU, Singapore)*

***"I have only the fondest of memories of Nambu. He was a man of inordinate kindness, and there were many times that I felt I was a beneficiary of his consideration and generosity. Of course, the impact of his science was enormous."***

**H. David Politzer, Caltech**
Nobel Laureate in Physics, 2004

***"A physicist universally admired by all who knew him as a kind and caring friend who was modest, considerate and soft-spoken. If Nambu is to be characterized in one short phrase, it is that he was a person of humble modesty and quiet dignity. But unbeknownst to many he also harbored a delightful penchant for drama on one hand and a deep sense of humor on the other."***

**Moo-Young Han, Duke University**

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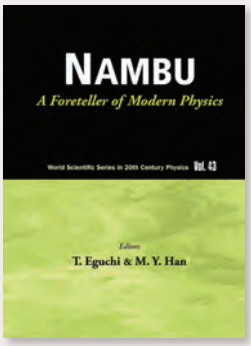
| **168pp** | **Jul 2016** | |
| **978-981-3108-31-8** | **US$48** | **£40** |
| **978-981-3108-32-5(pbk)** | **US$28** | **£23** |

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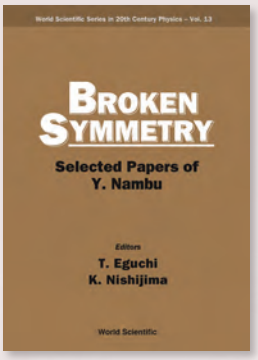
| **228pp** | **Feb 2014** | |
| **978-981-4578-14-1** | **US$68** | **£56** |
| **978-981-4583-05-3(pbk)** | **US$35** | **£29** |

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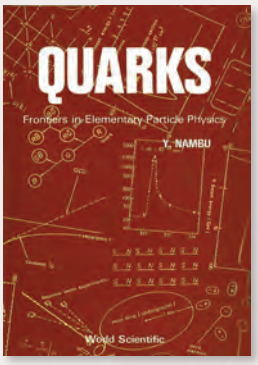
| **488pp** | **Nov 1995** | |
| **978-981-02-2356-4** | **US$102** | **£67** |
| **978-981-02-2420-2(pbk)** | **US$41** | **£27** |

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| **240pp** | **May 1985** | |
| **978-9971-966-65-2** | **US$72** | **£60** |
| **978-9971-966-66-9(pbk)** | **US$14** | **£12** |

## Kostya S Novoselov (Nobel Laureate in Physics, 2010)

### THE NEW ARCHITECTURE OF SCIENCE
### Learning from Graphene

*by* **Kostya S Novoselov** *(University of Manchester, UK & National University of Singapore, Singapore)*, **Albena Yaneva** *(University of Manchester, UK)*

This book explores how the architecture of advanced nanoscience labs affects the way scientists think, conduct experiments, interact and collaborate.

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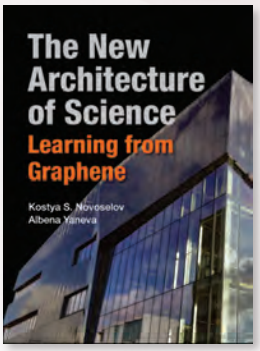
| **252pp** | **Sep 2020** | |
| **978-981-122-067-8** | **US$49** | **£45** |




### MOLECULAR INTERACTIONS ON TWO-DIMENSIONAL MATERIALS

edited by **Konstantin S Novoselov** *(National University of Singapore, Singapore)*, **Andrew T S Wee** *(National University of Singapore, Singapore)* & **Arramel** *(National University of Singapore, Singapore)*

This book is for senior undergraduates, graduate students and researchers interested in understanding the physical and chemical interactions of organic semiconductors on emergent two-dimensional (2D) materials.

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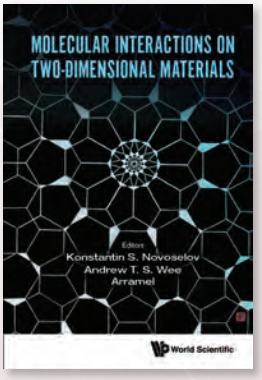
| **448pp** | **Oct 2021** | |
| **978-981-124-784-2** | **US$148** | **£130** |



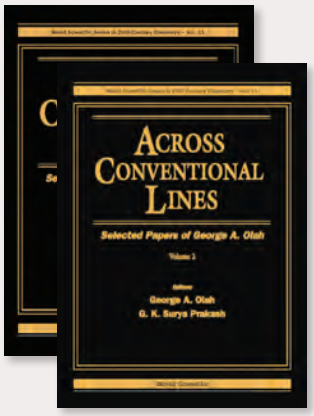
## George A Olah (Nobel Laureate in Chemistry, 1994)

World Scientific Series in 20th Century Chemistry – Vol. 11

### ACROSS CONVENTIONAL LINES
### Selected Papers of George A Olah (In 2 Volumes)

*edited by* **George A Olah** & **G K Surya Prakash** *(University of Southern California)*

In the course of his distinguished career spanning about half a century, George A Olah, winner of the 1994 Nobel Prize for Chemistry for his contributions to carbocation chemistry, has been exceedingly prolific and has published more than 1000 scientific papers and 15 books and holds more than 100 patents. This invaluable volume contains about 250 papers selected for their breadth and current importance.




**Set**
**1504pp** **Jan 2003**
**978-981-02-2769-2** **US$272** **£226**

## Lars Onsager (Nobel Laureate in Chemistry, 1968)

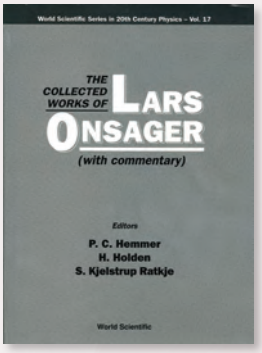
World Scientific Series in 20th Century Physics – Vol. 17

### THE COLLECTED WORKS OF LARS ONSAGER
### (With Commentary)

*edited by* **Per Chr Hemmer**, **Helge Holden** & **Signe Kjelstrup Ratkje** *(Norges tekniske høgskole)*

***"The variety of subjects covered by the book is really impressive, and most of the articles represent a seminal contribution of the author to the corresponding field of physics. They are still extremely relevant for the contemporary researchers working in these fields."***

**European Mathematical Society**




**1088pp** **Aug 1996**
**978-981-02-2563-6** **US$195** **£162**

## Linus Pauling (Nobel Laureate in Chemistry, 1954 and Nobel Laureate in Peace, 1962)

World Scientific Series in 20th Century Chemistry – Vol. 10

### LINUS PAULING — SELECTED SCIENTIFIC PAPERS
### (In 2 Volumes)

*edited by* **Barclay Kamb** *(Caltech)*, **Linda Pauling Kamb** *(LCProgeny, Inc)*, **Peter Jeffress Pauling** *(University College London)*, **Alexander Kamb** *(Arcaris, Inc.)* & **Linus Pauling, Jr.** *(Linus Pauling Institute of Science & Medicine)*

***"This comprehensive collection of his most significant contributions, printed on high quality paper, should prove to be a valuable addition to the education of these scientists."***

**The Chemical Educator**


**Vol. 1**
**864pp** **Nov 2001**
**978-981-02-2939-9** **US$180** **£149**

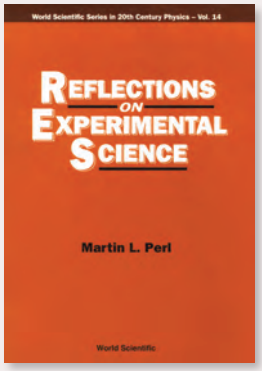
**Vol. 2**
**748pp**
**978-981-02-2940-5** **US$180** **£149**

## Martin L Perl (Nobel Laureate in Physics, 1995)

World Scientific Series in 20th Century Physics – Vol. 14

### REFLECTIONS ON EXPERIMENTAL SCIENCE

*by* **M L Perl** *(SLAC National Accelerator Laboratory, Stanford University)*




***"… the real jewels in this book are Perl's personal comments and reflections … He has produced a rare book that provides reflection for his colleagues and inspiration for young experimentalists."***

**CERN Courier**

This is a collection of important lectures, original articles and commentaries by Martin Perl, discoverer of the tau lepton and the third generation of elementary particles.

**Readership:** General readers interested in science and high energy physicists.

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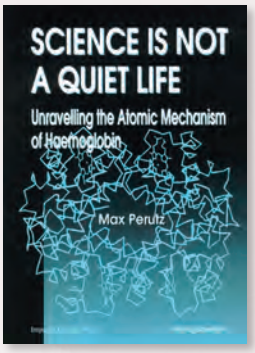
| **552pp** | **Dec 1995** | |
| **978-981-02-2429-5** | **US$127** | **£105** |
| **978-981-02-2574-2(pbk)** | **US$48** | **£40** |

## Max F. Perutz (Nobel Laureate in Chemistry, 1962)

### SCIENCE IS NOT A QUIET LIFE
### Unravelling the Atomic Mechanism of Haemoglobin

*by* **Max Perutz** *(MRC Laboratory of Molecular Biology, Cambridge, England)*




***" Max Perutz does for haemoglobin in this book what Primo Levi did for the Periodic Table … The book is far from dry, however, Perutz beginning each chapter with fascinating historical and anecdotal background. "***

**Chemistry in Britain**

**Readership:** Biochemists, chemists, medical researchers and molecular biologists.

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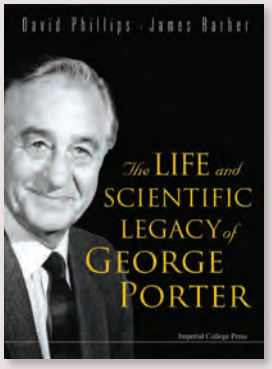
| **660pp** | **Mar 1998** | |
| **978-981-0227-74-6** | **US$137** | **£114** |
| **978-981-0230-57-9 (pbk)** | **US$50** | **£42** |

## Lord George H Porter (Nobel Laureate in Chemistry, 1967)

### THE LIFE AND SCIENTIFIC LEGACY OF GEORGE PORTER

*edited by* **David Phillips** & **James Barber** *(Imperial College London)*




***"This book will be of interest to his colleagues and contemporaries in physical chemistry, and indirectly to historians via the first-hand attributions of Porter's influence….this book is a catalogue of the credentials of the great and the good of two generations in British chemistry."***

**AMBIX**

In this volume, George Porter 's peers, former colleagues, students and friends — themselves highly regarded and well-known scientists in their own right — come together to honour and celebrate his enormous contributions.

**Readership**: Historians of science and chemistry researchers.

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| **652pp** | **Jul 2006** | |
| **978-1-86094-660-8** | **US$208** | **£173** |
| **978-1-86094-695-0(pbk)** | **US$48** | **£40** |


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| **560pp** | **Apr 1997** | |
| **978-1-86094-015-6** | **US$158** | **£104** |
| **978-1-86094-021-7(pbk)** | **US$58** | **£38** |

## Ilya Prigogine (Nobel Laureate in Chemistry, 1977)

### IS FUTURE GIVEN?

*by* **Ilya Prigogine**

In this book, after discussing the fundamental problems of current science and other philosophic concepts, beginning with controversies between Heraclitus and Parmenides, Ilya Prigogine launches into a message of great hope: the future has not been determined. This message challenges existing widespread views through mass communication.

**Contents:** Is Future Given? Changes in Our Description of Nature; Laws of Nature and Time Symmetry Breaking; Internet and Life and more.

**Readership:** General readers, scientists and students.

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| **160pp** | **Oct 2003** | |
| **978-981-238-507-9** | **US$74** | **£61** |
| **978-981-238-508-6(pbk)** | **US$39** | **£32** |


## Norman F Ramsey (Nobel Laureate in Physics, 1989)

World Scientific Series in 20th Century Physics —Vol. 21

### SPECTROSCOPY WITH COHERENT RADIATION
### Selected Papers of Norman F Ramsey (With Commentary)

*by* **Norman F Ramsey**

This invaluable volume contains a biography of Nobel laureate Norman F Ramsey as well as reprints and retrospective commentaries on 56 papers relating to spectroscopy with coherent radiation.

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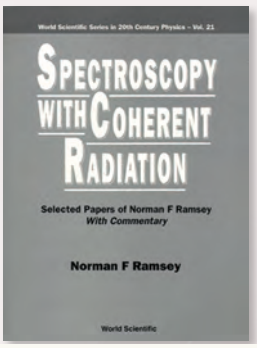
| **456pp** | **Jun 1998** |
| **978-981-02-3250-4** | **US$155 £129** |




## Frederick Reines (Nobel Laureate in Physics, 1995)

### NEUTRINOS AND OTHER MATTERS
### Selected Works of Frederick Reines

*edited by* **W Kropp**, **M Moe**, **L Price**, **J Schultz**, & **H Sobel** *(University of California, Irvine)*

This volume is a collection of the scientific papers of Frederick Reines. Its publication is to commemorate the 70th birthday, in 1988, of this distinguished scientist. The selected papers here cover many aspects of his work in neutrino physics, astrophysics and conservation law tests. They have been divided into logical groupings, each introduced by a leading authority in that field, who helps the reader to see the reprinted articles with a better historical and scientific perspective.

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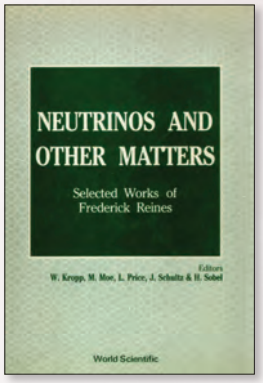
| **616pp** | **Jan 1991** |
| **978-981-02-0270-5** | **US$104 £86** |




## Maria A Ressa (Nobel Laureate in Peace, 2021)

### FROM BIN LADEN TO FACEBOOK
### 10 Days of Abduction, 10 Years of Terrorism

by **Maria A Ressa**

***"Maria Ressa has crafted a remarkable, true and troubling story. Her description of the nexus between social media and terrorism sheds an important light on the challenges we face in confronting non-state actors bent on destroying innocent lives. Ressa does not flinch in describing the ordeal her co-workers experienced, her role in freeing them or issuing a clarion call to us to be aware of the danger we face from Internet-connected terrorists. Her work is a critical literary experience for us all."***

**Harry K Thomas, Jr**
US Ambassador to the Philippines and
former Director for South Asia, National Security Council

**Readership:** Professionals and general readers interested in security and social issues and counter-terrorism research.

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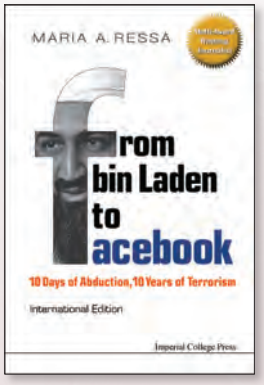
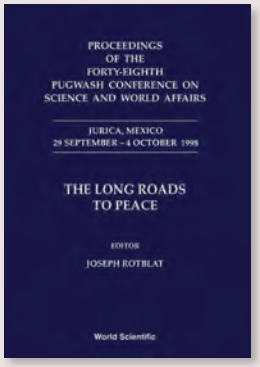
| **308pp** | **Apr 2013** |
| **978-1-908979-53-7** | **US$35 £29** |



## Joseph Rotblat (Nobel Laureate in Peace, 1995)

### THE LONG ROADS TO PEACE

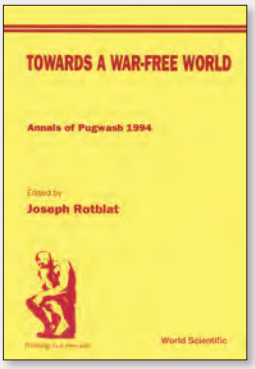
Proceedings of the Forty-Eighth Pugwash Conference on Science and World Affairs
Jurica, Mexico, 29 September – 4 October 1998
*edited by* **Joseph Rotblat** *(President Emeritus of the Pugwash Conferences)*



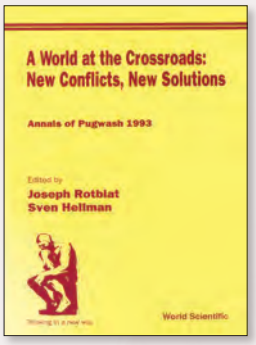

In this book, scientists who are pre-eminent in their fields focus on the crucial role of science in the transition away from a culture of war towards the construction of peace based on a capacity to anticipate and prevent destructive conflicts. The subject matter, wide-ranging and of great concern to people everywhere, includes the progress and prospects for a nuclear-weapon-free world; non-nuclear threats to peace and security; the building of legitimate world institutions; conflict resolution and the construction of peace; the local and global environmental dimensions of peace; the health hazards of nuclear chemical and biological weapons; and the interactions between health problems and poverty.

**Readership:** Graduate students in social sciences.

**456pp** **Jan 2001**
**978-981-02-4554-2** **US$243 £202**




**204pp** **Oct 1995**
**978-981-02-2492-9** **US$55 £46**

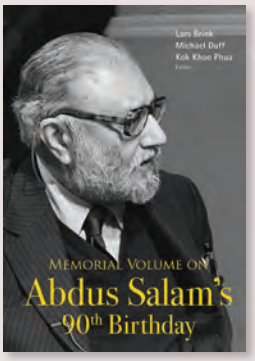



**288pp** **Nov 1994**
**978-981-02-2036-5** **US$82 £54**

## Abdus Salam (Nobel Laureate in Physics, 1979)

### MEMORIAL VOLUME ON ABDUS SALAM'S 90TH BIRTHDAY

*edited by* **Lars Brink** *(Chalmers University of Technology, Sweden)*,
**Michael Duff** *(Imperial College London, UK)* & **Kok Khoo Phua** *(NTU, Singapore)*



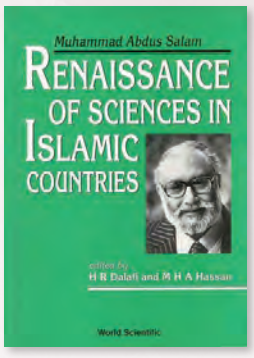

In honor of one of the most prolific and exciting scientists of the second half of the last century, a memorial meeting was organized by the Institute of Advanced Studies at Nanyang Technological University for Professor Abdus Salam's 90th Birthday in January 2016.

Salam believed that "scientific thought is the common heritage of all mankind" and that the developing world should play its part, not merely by importing technology but by being the arbiter of its own scientific destiny. That belief saw him rise from humble beginnings in a village in Pakistan to become one of the world's most original and influential particle physicists, culminating in the 1979 Nobel Prize (shared with Glashow and Weinberg) for contributions to electroweak unification, which forms an integral part of the Standard Model.

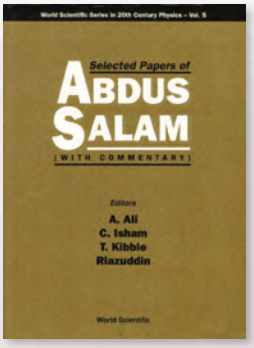
The book collected the papers presented at this memorable event which saw many distinguished scientists participating as speakers to reflect on Prof Salam's great passion for the science and achievements.

**Readership:** Students, researchers and academics interested in elementary particle physics.

**350pp** **Dec 2016**
**978-981-3144-86-6** **US$128 £106**




**376pp** **Sep 1994**
**978-9971-5-0946-0** **US$126 £105**
**978-9971-5-0713-8(pbk)** **US$48 £40**

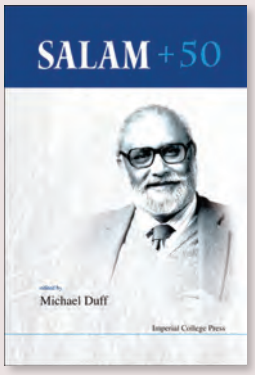



**696pp** **May 1994**
**978-981-02-1662-7** **US$176 £146**
**978-981-02-1663-4(pbk)** **US$58 £48**

## Abdus Salam (Nobel Laureate in Physics, 1979)

### SALAM + 50

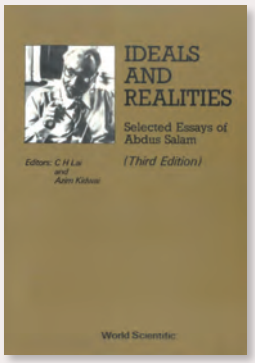
Proceedings of the Conference
Imperial College London, UK, 7 July 2007
*edited by* **Michael Duff** *(Imperial College London, UK)*



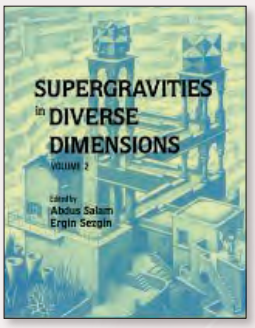

The year 2007 marked not only the centenary of Imperial College London but also the 50th anniversary of the late Nobel Laureate Professor Abdus Salam's arrival at the College. Accordingly, a conference entitled "Salam + 50" organized by the Theoretical Physics Group was held at Imperial College on 7 July 2007.
Many distinguished guests attended and paid their respects to the great man. Their contributions recorded in these proceedings are divided into three sections, designed to reflect the three dimensions of Salam's character: 1) Salam the Scientist, 2) Salam the Humanitarian, and 3) Salam the Man.

**Readership:** Scientists, physicists, historians of science and general readers.

**96pp** **Aug 2008**
**978-1-84816-190-0** **US$99** **£82**




**530pp** **Dec 1989**
**978-981-02-0080-0** **US$87** **£57**
**978-981-02-0081-7(pbk)** **US$29** **£19**




**In 2 volumes**
**1536pp** **Jun 1989**
**978-9971-5-0119-8** **US$246** **£204**

## Frederick Sanger (Nobel Laureate in Chemistry, 1958, 1980)

World Scientific Series in 20th Century Biology – Vol. 1

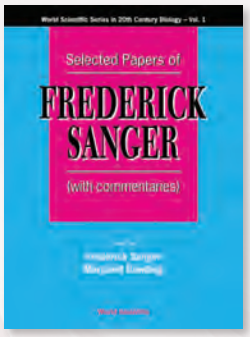
### SELECTED PAPERS OF FREDERICK SANGER (With Commentaries)

*edited by* **Frederick Sanger** & **Margaret Dowding** *(University of Cambridge)*

This important volume is mainly concerned with the development of methods for "sequencing" — that is, determination of the order of the amino acids in proteins and of nucleotides in RNA and DNA. The papers describe the steady improvements in techniques, and exciting biological results revealed by the sequences.

**Readership:** Biochemists, chemists, molecular biologists and graduate students in these disciplines.

**676pp** **Aug 1996**
**978-981-02-2430-1** **US$129** **£107**

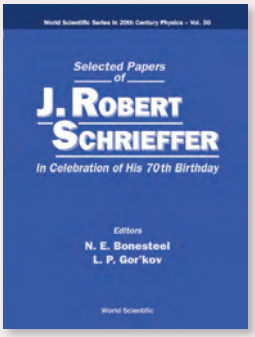


## J Robert Schrieffer (Nobel Laureate in Physics, 1972)

World Scientific Series in 20th Century Physics – Vol. 30

### SELECTED PAPERS OF J ROBERT SCHRIEFFER
### In Celebration of His 70th Birthday

*edited by* **N E Bonesteel** & **L P Gor'kov** *(National High Magnetic Field Laboratory, Florida)*




This invaluable book is a selection of papers by theoretical physicist and Nobel laureate J Robert Schrieffer. In addition to his Nobel Prize-winning work in superconductivity, Prof Schrieffer has made significant contributions to a wide variety of topics in condensed matter physics.

The papers are reviewed and placed in context by leading experts. The guest contributors are A Alexandrov (on electrons and phonons), T Einstein (on surfaces,) S Kivelson (on quantum Hall effect), D Scalapino (on the BCS theory of superconductivity), F Wilczek (on solitons and fractional quantum numbers), J W Wilkins (on magnetic impurities) and S C Zhang (on high-$T_c$ superconductivity).

**Readership:** Upper level undergraduates, graduate students, academics and researchers in physics.

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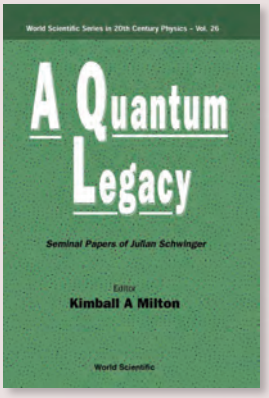
| **524pp** | **Nov 2002** | |
| **978-981-238-078-4** | **US$160** | **£133** |
| **978-981-238-079-1(pbk)** | **US$58** | **£48** |

## Julian S Schwinger (Nobel Laureate in Physics, 1965)

World Scientific Series in 20th Century Physics – Vol. 26

### A QUANTUM LEGACY
### Seminal Papers of Julian Schwinger

*edited by* **Kimball A Milton** *(University of Oklahoma)*




***"… it is hard to imagine what physics would be like at the end of the millennium without the contributions of Julian Schwinger, a private man but a great scientist and a superb teacher with dozens of the now best established theoretical physicists among his students, including three Nobel laureates …"***

**CERN Courier**

**Readership:** Theoretical physicists, mathematicians and historians of science.

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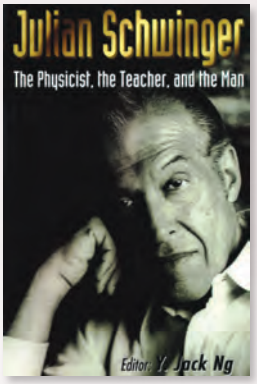
| **808pp** | **May 2000** | |
| **978-981-02-4006-6** | **US$209** | **£173** |

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| **212pp** | **Jan 1996** | |
| **978-981-02-2531-5** | **US$58** | **£38** |
| **978-981-02-2532-2(pbk)** | **US$25** | **£17** |

## Glenn T Seaborg (Nobel Laureate in Chemistry, 1951)

World Scientific Series in 20th Century Chemistry – Vol. 2

### MODERN ALCHEMY
### Selected Papers of Glenn T Seaborg

*edited by* **Glenn T Seaborg**

***"In addition to research papers, reviews, reports, and addresses make the collection more colorful and very interesting to read. They are also testimony to the wide scope of Seaborg's interest and his outstanding abilities as a communicator. The foundation of all is, however, his seminal discoveries. For he is a true pioneer blessed with a far-seeing vision."***

**The Chemical Intelligencer**

This volume puts together about 100 of Glenn T Seaborg's selected papers written during his distinguished career spanning more than 50 years.

**Readership:** Chemists.

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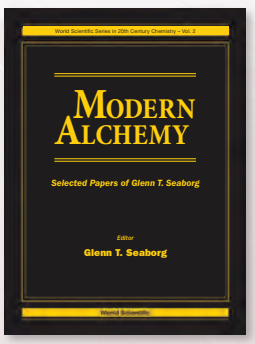
| **720pp** | **May 1994** | |
| **978-981-02-1440-1** | **US$195** | **£162** |



## William F Sharpe (Nobel Laureate in Economic Sciences, 1990)

World Scientific – Nobel Laureate Series – Vol. 2

### WILLIAM F SHARPE
### Selected Works

*edited by* **William F Sharpe** *(Stanford University)*

William F Sharpe received the Nobel Prize in Economic Sciences in 1990 for his work on equilibrium pricing in capital markets. He was one of the originators of the Capital Asset Pricing Model, developed the Sharpe Ratio for investment performance analysis, the binomial method for the valuation of options, the gradient method for asset allocation optimization, and returns-based style analysis for evaluating the style and performance of investment funds. This book consists of a collection of Dr Sharpe's work in these and other areas.

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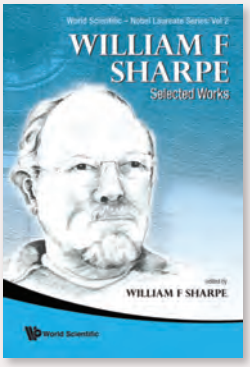
| **716pp** | **Feb 2012** | |
| **978-981-4329-95-8** | **US$155** | **£129** |




## Osamu Shimomura (Nobel Laureate in Chemistry, 2008)

### LUMINOUS PURSUIT
### Jellyfish, GFP, and the Unforeseen Path to the Nobel Prize

By **Osamu Shimomura** *(Marine Biological Laboratory, USA)*, **Sachi Shimomura** *(Virginia Commonwealth University, USA)*, **John H Brinegar** *(Virginia Commonwealth University, USA)*

This book narrates the uniquely intertwined life and scientific career of Nobel laureate Osamu Shimomura, with particular attention to his discovery of aequorin and Green Fluorescent Protein (GFP). It provides an engaging account of the life of a dedicated scientist, emphasizing the value of determination in the pursuit of pure scientific knowledge, and showing how a general understanding of science helped him open up new areas of research that have led to unforeseen applications in cell biology and medicine.

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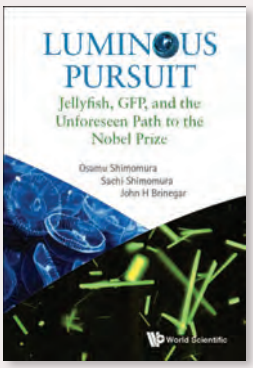
| **228pp** | **May 2017** | |
| **978-981-3202-15-3** | **US$68** | **£56** |
| **978-981-3202-16-0(pbk)** | **US$38** | **£33** |




### BIOLUMINESCENCE
### Chemical Principles and Methods

**3rd Edition**

edited by **Osamu Shimomura** *(The Marine Biological Laboratory, USA)*, **Ilia Yampolsky** *(Russian Academy of Sciences, Moscow, Russia)*

**This book is the bible of bioluminescence and a must-read not only for the students but for those who work in various fields relating to bioluminescence. It summarizes current structural information on all known bioluminescent systems in nature, from well-studied ones to those that have been seldom investigated.**

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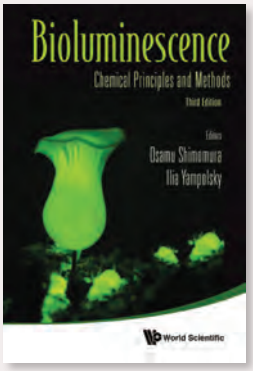
| **556pp** | **Jun 2019** | |
| **978-981-3277-10-6** | **US$158** | **£140** |




## Gerard 't Hooft (Nobel Laureate in Physics, 1999)

### TIME IN POWERS OF TEN
### Natural Phenomena and Their Timescales

*by* **Gerard 't Hooft** & **Stefan Vandoren** *(Utrecht University, The Netherlands)*
*translated by* **Saskia Eisberg- 't Hooft**

With a Foreword by **Steven Weinberg**


***"Pleasingly accessible volume that will give pleasure to academics, students, connoisseurs of coffee-table books and even the people who compile questions for Trivial Pursuit ... Can be enjoyed as a source of scientific stories and images, as an unusual perspective on history, as a popular account of modern physics, and so on. Underneath them all is a wealth of serious science that will give readers insights into abstract fundamental ideas via concrete realities."***

**Times Higher Education**

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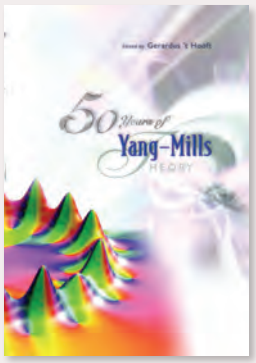
| **232pp** | **Jul 2014** | |
| **978-981-4489-80-5** | **US$78** | **£65** |
| **978-981-4489-81-2(pbk)** | **US$24** | **£20** |

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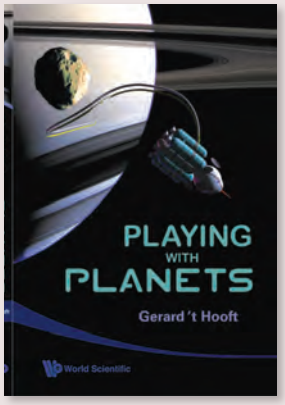
| **500pp** | **Feb 2005** | |
| **978-981-238-934-3** | **US$110** | **£91** |
| **978-981-256-007-0(pbk)** | **US$38** | **£32** |

## Gerard 't Hooft (Nobel Laureate in Physics, 1999)

### PLAYING WITH PLANETS

*by* **Gerard 't Hooft** *(Utrecht University)*




***"I much enjoyed wandering the world, following this enquiring and original mind."***

**CERN Courier**

If you think the future is a mystery, think again. With a solid foothold in realism, an extraordinary insight into scientific and technological developments, and a dry sense of humor, Professor Gerard 't Hooft confidently dissects fact from fiction and shows us what our future might really hold. Professor 't Hooft takes the reader firmly by the hand and, within the boundaries of solid physics and proven laws of nature, takes us on a ride into the world of the future, which holds remarkable surprises for us all. *Playing with Planets*, which is translated from the original Dutch edition by Professor 't Hooft's daughter Saskia, supports the old adage that truth is indeed stranger than fiction.

**Readership:** Students and lay readers.

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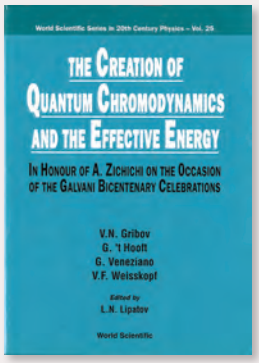
| **152pp** | **Oct 2008** | |
| **978-981-279-307-2** | **US$51** | **£42** |
| **978-981-279-020-0(pbk)** | **US$22** | **£18** |

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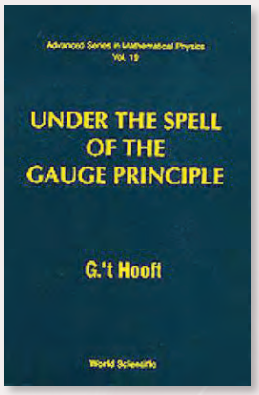
| **372pp** | **Jan 2001** | |
| **978-981-02-4141-4** | **US$207** | **£136** |

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|---|---|---|
| **696pp** | **Aug 1994** | |
| **978-981-02-1308-4** | **US$129** | **£85** |
| **978-981-02-1309-1(pbk)** | **US$48** | **£32** |

## David J Thouless (Nobel Laureate in Physics, 2016)

### 40 YEARS OF BEREZINSKII – KOSTERLITZ – THOULESS Theory

*edited by* **Jorge V José** *(Indiana University, USA)*

***"The editor has made an excellent job in bringing together ten articles exhaustively covering the most paradigmatic examples. All articles have the appropriate extension so as to offer a comprehensive tutorial basis to each argument. The subject is introduced by a delightful tale, written by Kosterlitz and Thouless themselves, on the motivations and the uneasy path which led to their great discovery. How timely and well done was the initiative of celebrating the first forty years of BKT theory, for which this collection, despite the further rapid progress expected in the field, promises to remain a reference textbook."***

**Il Nuovo Saggiatore**

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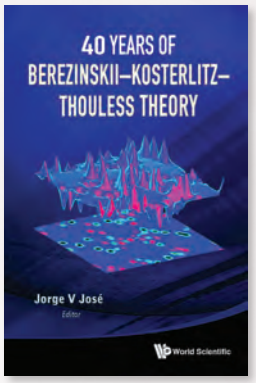
| **364pp** | **Aug 2013** | |
| **978-981-4417-62-4** | **US$98** | **£81** |
| **978-981-4417-63-1(pbk)** | **US$38** | **£32** |




### TOPOLOGICAL QUANTUM NUMBERS IN NONRELATIVISTIC PHYSICS

*by* **David J Thouless** *(University of Washington, Seattle)*

***"This book is a collection, with commentary, of papers which over the last three decades of the last century pioneered some of the topological considerations which are today recognized as fundamental in many-body physics. As recognized by the award of the 2016 physics Nobel prize, David Thouless has been the dominant figure in this development, and his lucid and magisterial survey of the field is as useful today as when the book was first published. This is "must-read" for anyone starting research in the area of topological insulators or superconductors, the quantum Hall effect or indeed much of modern condensed matter physics."***

**Anthony J Leggett**
Nobel laureate in Physics, 2003

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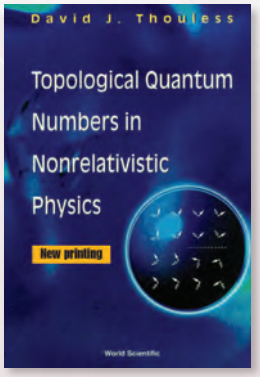
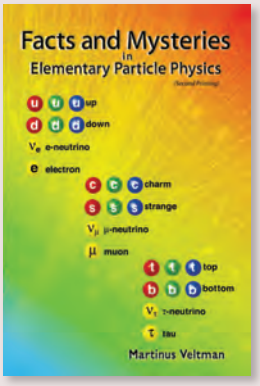
| **440pp** | **Mar 1998** | |
| **978-981-02-2900-9** | **US$137** | **£114** |
| **978-981-02-3025-8(pbk)** | **US$67** | **£56** |



## Martinus J G Veltman (Nobel Laureate in Physics, 1999)

### FACTS AND MYSTERIES IN ELEMENTARY PARTICLE PHYSICS

*by* **Martinus J G Veltman** *(University of Michigan, Ann Arbor & Utrecht University)*




***"Veltman gives an excellent impression of how science works and how the desire to penetrate into the unknown is what fires the enthusiasm of scientists. He also manages to explain the most abstract intricacies of particle theory without using any mathematics whatsoever … I can fully recommend this book to students and interested lay readers, who will gain a fascinating insight into the sub-nuclear world — from a theoretical experimental and personal point of view."***

**Physics World**

This book provides a comprehensive overview of modern particle physics accessible to anyone with a true passion for wanting to know how the universe works. We are introduced to the known particles of the world we live in. An elegant explanation of quantum mechanics and relativity paves the way for an understanding of the laws that govern particle physics. These laws are put into action in the world of accelerators, colliders and detectors found at institutions such as CERN and Fermilab that are in the forefront of technical innovation. Real world and theory meet using Feynman diagrams to solve the problems of infinities and deduce the need for the Higgs boson.

This book also contains many thumbnail sketches of particle physics personalities, including contemporaries as seen through the eyes of the author. Illustrated with pictures, these candid sketches present rare, perceptive views of the characters that populate the field.

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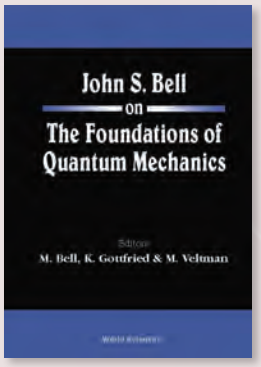
| **352pp** | **Mar 2018** | |
| **978-981-3237-05-6** | **US$85** | **£75** |
| **978-981-3237-49-0(pbk)** | **US$35** | **£31** |

### JOHN S BELL ON THE FOUNDATIONS OF QUANTUM MECHANICS

*edited by* **M Bell** *(CERN),* **K Gottfried** *(Cornell University)*
*&* **M Veltman** *(University of Michigan, Ann Arbor)*




This book is the most complete collection of John S Bell's research papers, review articles and lecture notes on the foundations of quantum mechanics. Some of this material has hitherto been difficult to access. The book also appears in a paperback edition, aimed at students and young researchers.

This volume will be very useful to researchers in the foundations and applications of quantum mechanics.

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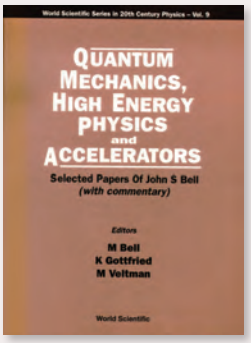
|---|---|---|---|
| **248pp** | **Aug 2001** | | |
| **978-981-02-4687-7** | **US$58** | **£48** | |
| **978-981-02-4688-4(pbk)** | | **US$24** | **£23** |

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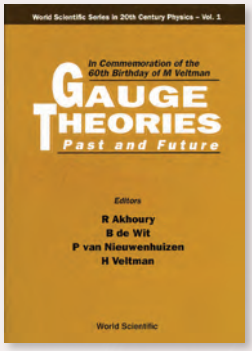
| **952pp** | **Sep 1995** |
| **978-981-02-2115-7** | **US$158 £104** |

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| **368pp** | **Oct 1992** |
| **978-981-02-1028-1** | **US$112 £74** |

## Arieh Warshel (Nobel Laureate in Chemistry, 2013)

### FROM KIBBUTZ FISHPONDS TO THE NOBEL PRIZE
### Taking Molecular Functions into Cyberspace

by **Arieh Warshel** *(University of Southern California, USA)*

This is as much an autobiography as an advocacy for the emerging field of computational science. We follow Warshel through pivotal moments of his life, from his formative years in war-torn Israel in an idealistic kibbutz that did not encourage academic education; to his time in the army and his move to the Technion where he started in his obsession of understanding the catalytic power of enzymes; to his eventual scientific career which took him to the Weizmann Institute, Harvard University, Medical Research Council, and finally University of Southern California. We read about his unique contributions to the elucidation of the molecular basis of biological functions, which are combined with instructive stories about his persistence in advancing ideas that contradict the current dogma, and the nature of his scientific struggle for recognition, both personal and for the field to which he devoted his life.

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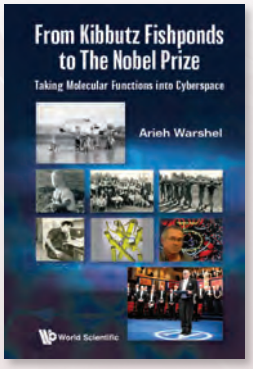
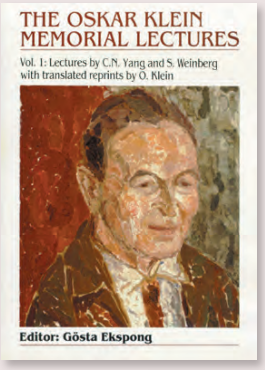
| **156pp** | **Nov 2021** | |
| **978-981-124-315-8(pbk)** | **US$24** | **£20** |
| **978-981-124-178-9** | **US$58** | **£50** |



## Steven Weinberg (Nobel Laureate in Physics, 1979)

### THE OSKAR KLEIN MEMORIAL LECTURES
### Vol 1: Lectures by C N Yang and S Weinberg With Translated Reprints by O Klein

*edited by* **G Ekspong** *(Stockholm University)*




***"I strongly recommend to physicists and historians of science this handsomely produced slim, volume containing lectures by Yang (richly illustrated) and Weinberg on topics in which Klein had made important early steps, as well as a biographical sketch of Klein and some of his major papers."***

**Abraham Pais**

Volume 1 contains the 1988 lectures on "Symmetry and Physics" and "From the Bethe-Hulthén Hypothesis to the Yang-Baxter Equation," given by C N Yang. The 1989 lectures on "Beyond the Standard Models," referring to models for cosmology and elementary particles, and on "Precision Tests of Quantum Mechanics" were given by Steven Weinberg.

**Contents:** Oskar Klein (I Fischer-Hjalmars & B Laurent); Symmetry and Physics (C N Yang); From the Bethe-Hulthén Hypothesis to the Yang-Baxter Equation (C N Yang); Beyond the Standard Models (S Weinberg); Precision Tests of Quantum Mechanics (S Weinberg); Quantum Theory and Five-Dimensional Relativity Theory (O Klein); The Atomicity of Electricity as a Quantum Theory Law (O Klein); On the Field Theory of Charged Particles (O Klein); From My Life of Physics (O Klein); Scientific Bibliography of Oskar Klein.

**Readership:** Physicists.

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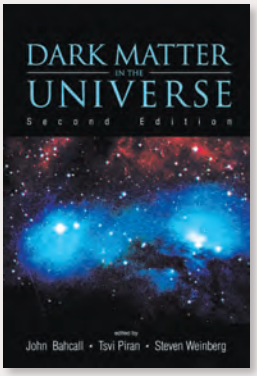
| **140pp** | **Mar 1991** | |
| **978-981-02-0352-8** | **US$65** | **£54** |
| **978-981-02-0353-5(pbk)** | **US$33** | **£27** |

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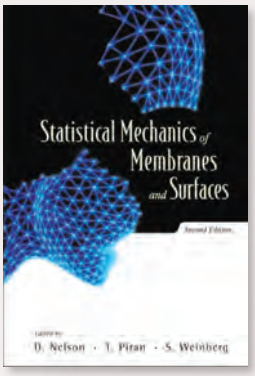
| **248pp** | **Sep 2004** | |
| **978-981-238-840-7** | **US$145** | **£96** |
| **978-981-238-841-4(pbk)** | **US$48** | **£32** |

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| **444pp** | **Jun 2004** | |
| **978-981-238-760-8** | **US$87** | **£57** |
| **978-981-238-772-1(pbk)** | **US$45** | **£29** |

## Carl E Wieman (Nobel Laureate in Physics, 2001)

### COLLECTED PAPERS OF CARL WIEMAN

*by* **Carl E Wieman** *(University of Colorado, Boulder)*

Carl Wieman's contributions have had a major impact on defining the field of atomic physics as it exists today. His ground-breaking research has included precision laser spectroscopy; using lasers and atoms to provide important table-top tests of theories of elementary particle physics; the development of techniques to cool and trap atoms using laser light, particularly in inventing much simpler, less expensive ways to do this; the understanding of how atoms interact with one another and light at ultracold temperatures; and the creation of the first Bose–Einstein condensation in a dilute gas, and the study of the properties of this condensate. In recent years, he has also turned his attention to physics education and new methods and research in that area. This indispensable volume presents his collected papers, with annotations from the author, tracing his fascinating research path and providing valuable insight about the significance of the works.

**Readership:** Graduates, postgraduates and researchers in atomic physics, laser physics and general physics.

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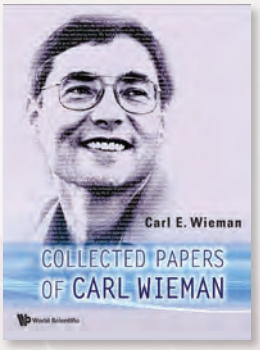
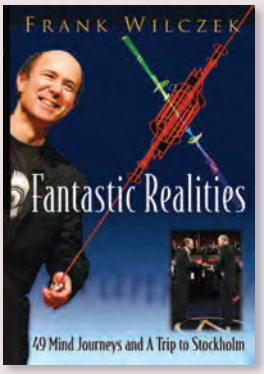
| **824pp** | **Jan 2008** | |
| **978-981-270-415-3** | **US$234** | **£194** |
| **978-981-270-416-0(pbk)** | **US$68** | **£56** |



## Frank A Wilczek (Nobel Laureate in Physics, 2004)

### FANTASTIC REALITIES
### 49 Mind Journeys and A Trip to Stockholm

*by* **Frank Wilczek** *(MIT) with a contribution from* **Betsy Devine**




***"Wilczek's writing is deeply intellectual. The essays are centred around QFT but range far more widely. They display a sensitive appreciation of subtle features of the culture of modern physical science … it is fascinating to see Wilczek circling round the same set of ideas. There is much concentrated wisdom here, and he has a deft touch with words."***

**Nature**

The fantastic reality that is modern physics is open for your exploration, guided by one of its primary architects and interpreters, Nobel Prize winner Frank Wilczek.

Some jokes, some poems, and extracts from wife Betsy Devine's sparkling chronicle of what it's like to live through a Nobel Prize provide easy entertainment. There's also some history, some philosophy, some exposition of frontier science, and some frontier science, for your lasting edification.

49 pieces, including many from Wilczek's award-winning Reference Frame columns in *Physics Today*, and some never before published, are gathered by style and subject into a dozen chapters, each with a revealing, witty introduction.

**Readership:** Students, scientists and lay people.

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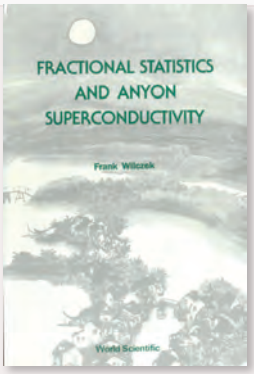
| **532pp** | **Mar 2006** | |
| **978-981-256-649-2** | **US$100** | **£83** |
| **978-981-256-655-3(pbk)** | **US$39** | **£32** |

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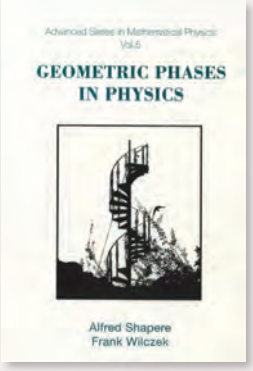
| **460pp** | **Oct 1990** | |
| **978-981-02-0048-0** | **US$138** | **£91** |
| **978-981-02-0049-7(pbk)** | **US$48** | **£32** |

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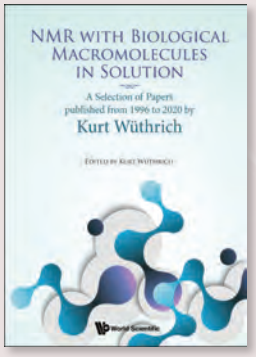
|---|---|---|
| **528pp** | **Jul 1989** | |
| **978-9971-5-0621-6(pbk)** | **US$48** | **£32** |

## Kurt Wüthrich (Nobel Laureate in Chemistry, 2002)

### NMR WITH BIOLOGICAL MACROMOLECULES IN SOLUTION
### A Selection of Papers Published from 1996 to 2020 by Kurt Wüthrich

edited by **Kurt Wüthrich** *(ETH Zürich, Switzerland & The Scripps Research Institute, USA)*




The book provides insights into the research of the Kurt Wüthrich laboratories from 1996 – 2020. During this time period, the technique of nuclear magnetic resonance (NMR) spectroscopy in solution went through several breakthroughs, while maturing into a standard method of structural biology. With the introduction of TROSY (transverse relaxation-optimized spectroscopy), the range of accessible molecular sizes was extended about thirty-fold, and efficient protein structure determination resulted from the demands of the structural genomics initiative. Applications in fundamental biology and biomedicine include studies of prion proteins and prion diseases (TSEs), the SARS-Corona virus proteome, trans-membrane signalling by G protein-coupled receptors (GPCRs), and signal transfer by pheromones.

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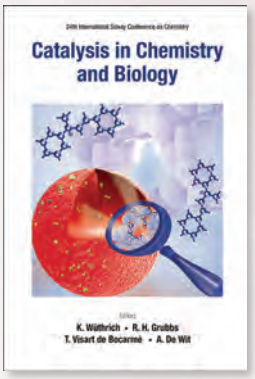
| **264pp** | **Sep 2021** | |
| **978-981-123-913-7(pbk)** | **US$58** | **£50** |
| **978-981-123-578-8** | **US$108** | **£95** |

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| **416pp** | **Jun 2018** | |
| **978-981-3237-16-2** | **US$158** | **£139** |

World Scientific Series in 20th Century Chemistry – Vol. 5

### NMR IN STRUCTURAL BIOLOGY
### A Collection of Papers by Kurt Wüthrich

*edited by* **Kurt Wüthrich** *(ETH Zürich)*

The volume presents a survey of the research by Kurt Wüthrich and his associates during the period 1965 to 1994. A selection of reprints of original papers on the use of NMR spectroscopy in structural biology is supplemented with an introduction, which outlines the foundations and the historical development of the use of NMR spectroscopy for the determination of three-dimensional structures of biological macromolecules in solution. The original papers are presented in groups highlighting protein structure determination by NMR, studies of dynamic properties and hydration of biological macromolecules, and practical applications of the NMR methodology in fields such as enzymology, transcriptional regulation, immunosuppression and protein folding.

**Readership:** Chemists, biochemists and molecular & cell biology scientists.

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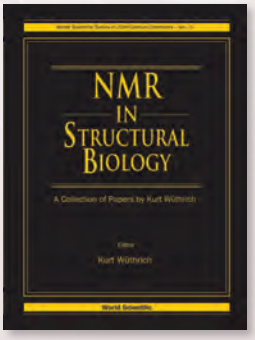
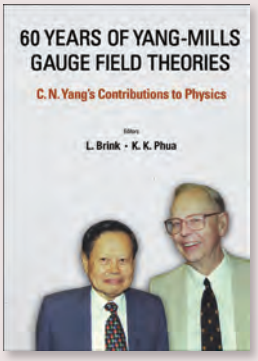
|---|---|---|
| **760pp** | **Jul 1995** | |
| **978-981-02-2242-0** | **US$146** | **£121** |
| **978-981-02-2384-7(pbk)** | **US$68** | **£56** |



## Chen Ning Yang (Nobel Laureate in Physics, 1957)

### 60 YEARS OF YANG – MILLS GAUGE FIELD THEORIES
#### C N Yang's Contributions to Physics

Proceedings of the Conference on 60 Years of Yang – Mills Gauge Field Theories: C N Yang's Contributions to Physics
Nanyang Technological University, Singapore, 25 – 28 May 2015
edited by **L Brink** *(Chalmers University of Technology, Sweden)* & **K K Phua** *(NTU, Singapore)*




The conference celebrated the exceptional achievements using Yang – Mills theory over the years but also many other truly remarkable contributions to different branches of physics from Prof C N Yang. This volume collects the invaluable talks by Prof C N Yang and the invited speakers reviewing these remarkable contributions and their importance for the future of physics.

**Readership:** Graduate students and scientists working in high energy physics, statistical physics and condensed matter physics.

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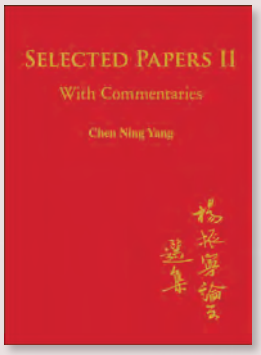
by **Chen Ning Yang** *(Tsinghua University, China & Chinese University of Hong Kong, Hong Kong)*




***"Prof. Yang's achievements certainly has a great deal to reflect upon and propound, such as attested to by his many speeches on different occasions and contributions to various publications, which make up slightly more than one-third of the book. Among the 47 articles included, close to a quarter are original research papers."***

**International Journal of Modern Physics A**

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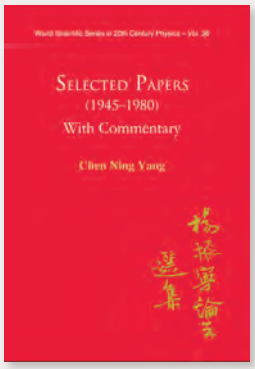


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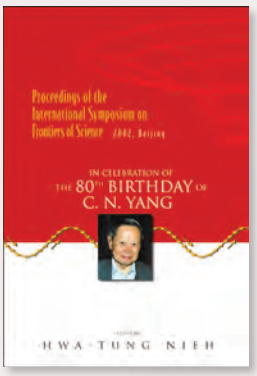


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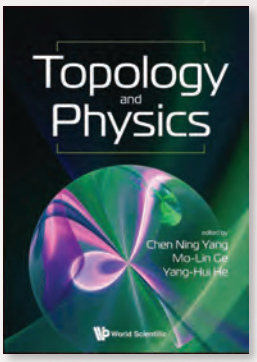


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**Physics Today**

This is Yukawa's autobiography of his early years, written in Japanese when he was fifty years old. It describes his family background and the education and experience, both social and intellectual, that helped to form his character and direct his career. Especially valuable to the historian of science are his discussions of scientific relationships with his colleague Sin-Itiro Tomonaga, with his teacher Yoshio Nishina, and with his students (who later became his collaborators): Sakata, Taketani, and Kobayashi.

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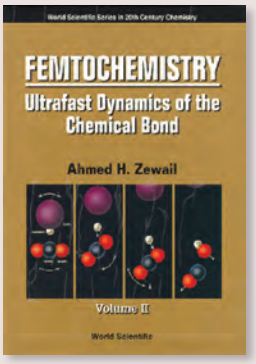


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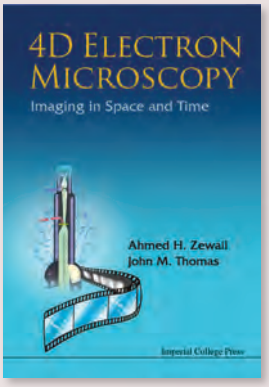


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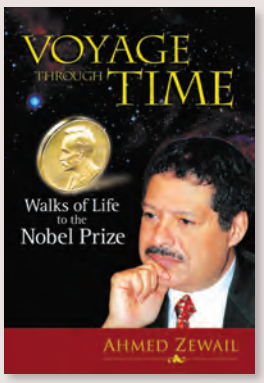


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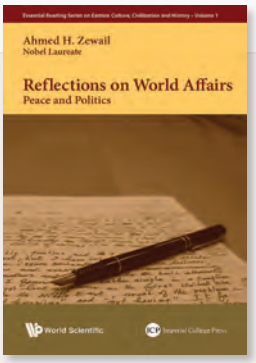


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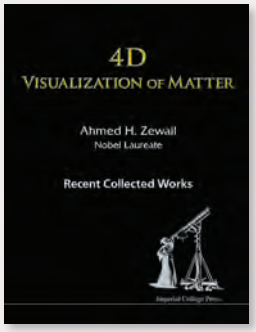


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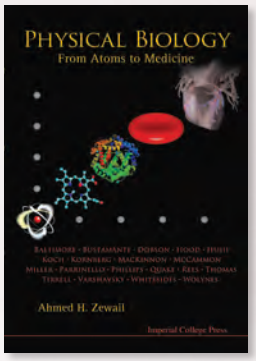


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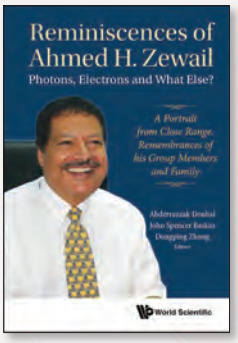


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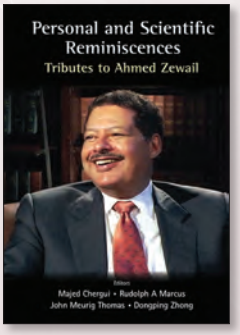


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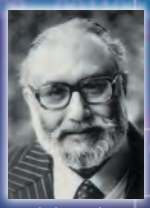
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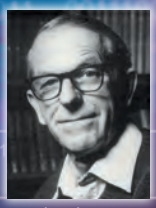
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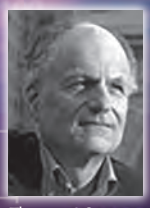
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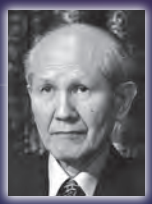
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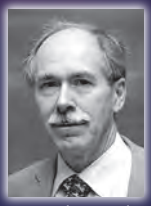
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