

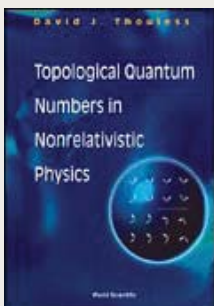
Brief Newsletter from World Scientific

October 2016

World Scientific Congratulates its Authors
David J Thouless & J Michael Kosterlitz
On being Awarded the 2016 Nobel Prize in Physics



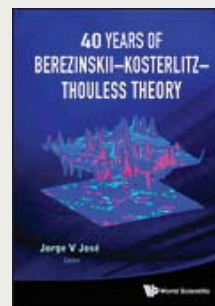
David J. Thouless & J. Michael Kosterlitz



Topological Quantum Numbers in Nonrelativistic Physics

By: David J Thouless

<http://www.worldscientific.com/worldscibooks/10.1142/3318>



40 Years of Berezinskii-Kosterlitz-Thouless Theory

By: Jorge V José

- Early Work on Defect Driven Phase Transitions

by J. Michael Kosterlitz, David J. Thouless

<http://www.worldscientific.com/worldscibooks/10.1142/8572>



Anderson localization in the seventies and beyond

Int. J. Mod. Phys. B, Vol. 24, No.12n13, pp.1507-1525 (2010)

David Thouless

DOI: 10.1142/S0217979210064496

Quantized vortices in superfluids and superconductors

Int. J. Mod. Phys. B, Vol. 13, No.05n06, pp.675-686 (1999)

D. J. Thouless, Ping Ao, Qian Niu, M. R. Geller, C. Wexler

DOI: 10.1142/S0217979299000576



Nonlinear Schrödinger equation for superconductors

Mod. Phys. Lett. B, Vol. 09, No.11n12, pp.755-761 (1995)

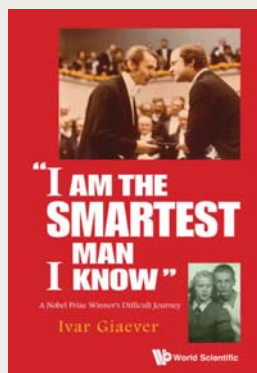
Ping Ao, David J. Thouless, X.-M. Zhu

DOI: 10.1142/S021798499500070X

World Scientific Celebrates Nobel Laureates

Winner of the 1973 Nobel Prize in Physics "I am the Smartest Man I Know" A Nobel Laureate's Difficult Journey

By: **Ivar Giaever** (*Applied BioPhysics, Inc., USA*)



The personal memoirs of a Nobel laureate, "*I am the Smartest Man I Know*", traces the difficult journey of a scientist from a most unremarkable start to the Nobel Prize Award ceremony. Starting the narrative with the story of an ordinary childhood in Norway before tracing his journey to Canada and subsequently to the US, Giaever sets out to draw readers into a world where determination and luck result in wonderful opportunities such as the chance to work with cutting-edge scientific researchers at General Electric R&D in Schenectady, New York. With that in mind, readers are then introduced to his subsequent work on superconductivity which led to worldwide recognition and the Nobel Prize.

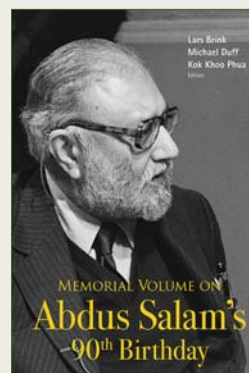
Written with humor and great hindsight, the book never fails to engage readers with the reminiscences of an independent, highly creative thinker and problem solver who loves games and puzzles, skiing and windsurfing, as well as time with friends and family. Giaever's fascinating story intertwines personal views on the nature of science, scientific processes, contemporary issues such as global warming, with reflections on the great benefits the Nobel Prize has afforded him. "*I am the Smartest Man I know*" is a fascinating meditation on science, intellectual inquiry and life itself that lends itself to a broad spectrum of readers.

<http://www.worldscientific.com/worldscibooks/10.1142/10021>



Winner of the 1979 Nobel Prize in Physics 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*)



A collection of papers presented at an event held in honour of one of the most prolific and exciting scientists of the second half of the last century, this memorial volume seeks to present a view of the late Nobel laureate through the eyes of those who have worked with him or have felt the great impact of his influence in their professional lives.

Holding to the belief 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, Salam rose from humble beginnings in a village in Pakistan to become one of the world's most original and influential particle physicists. The volume also celebrates one of his crowning achievements: the winning of the 1979 Nobel Prize (shared with Glashow and Weinberg) for contributions to electroweak unification, an integral part of the Standard Model.

A must read for students, researchers and members of the academic community who wish to understand the legacy and lasting influence of Salam.

<http://www.worldscientific.com/worldscibooks/10.1142/10161>



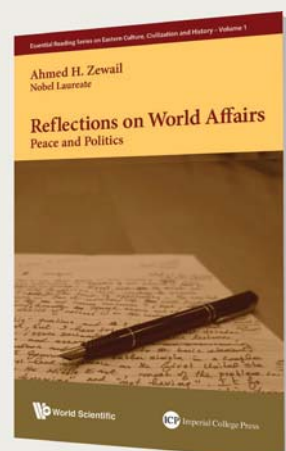
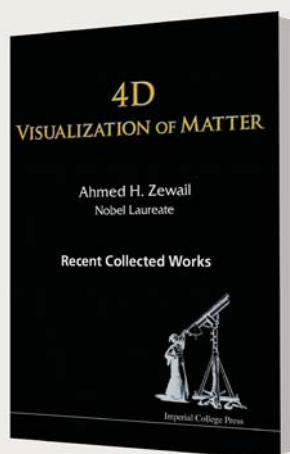
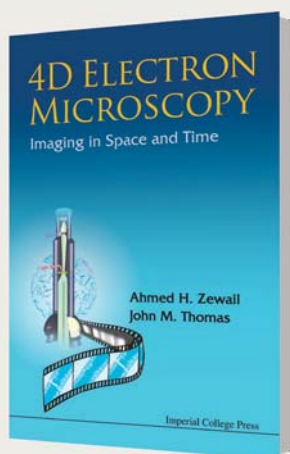
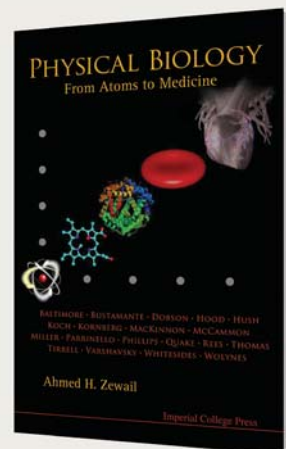
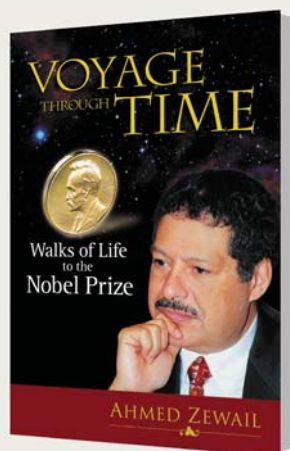
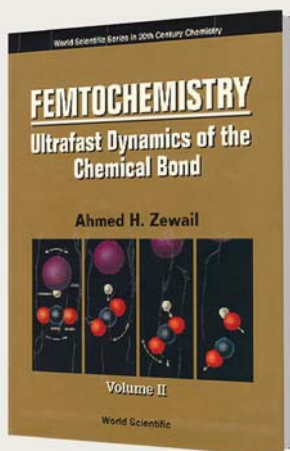
World Scientific Remembers

World Scientific Remembers Ahmed H. Zewail

Nobel Laureate (1999 Nobel Prize in Chemistry)

Cherished Author with

6 significant books published by World Scientific



Sole recipient of the Nobel Prize in Chemistry in 1999 and renowned worldwide as the “Father” of Femtochemistry, Ahmed H. Zewail, passed on at age 70 on August 2, 2016. Prof Zewail was the Linus Pauling Chair Professor of Chemistry, Professor of Physics, and director of the Physical Biology Center for Ultrafast Science and Technology at Caltech.

World Scientific will publish a book in memory of the late Professor Zewail, edited by Prof Sir John Meurig Thomas from Cambridge University, Prof Majed Chergui from Ecole Polytechnique de Lausanne (EPFL) and Dr Dongping Zhong from Ohio State University. A collection of essays from Prof Zewail’s former students and colleagues in tribute to him, the new book Tributes to Ahmed Zewail: A Memorial Volume in Honour of a Great Chemist will be released in early 2017.

Physics Legends

In Memoriam: Kerson Huang MIT Professor Emeritus, World Scientific Author

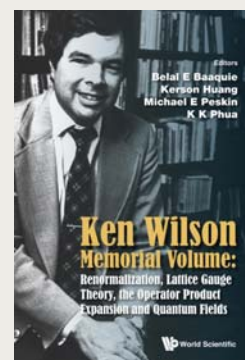
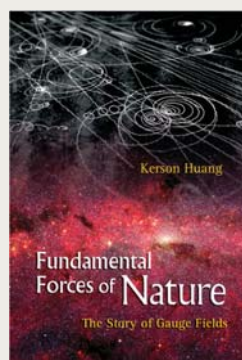
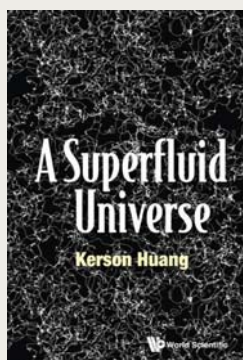
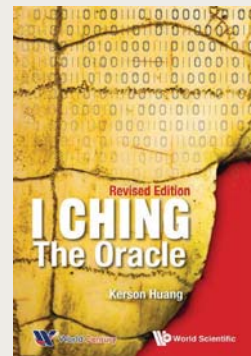
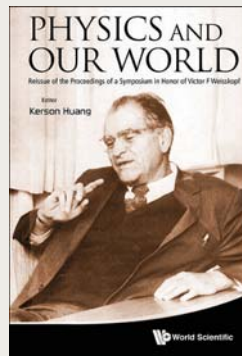
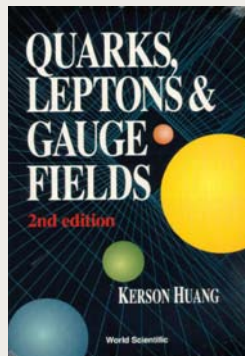
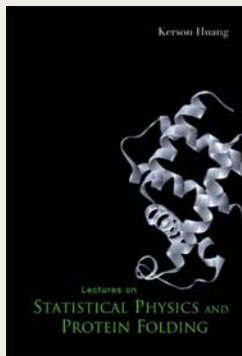


World Scientific remembers MIT Professor Emeritus and World Scientific author, Kerson Huang, who passed away recently at the age of 88.

Working together with some of the biggest names in the field of Physics, such as C. N. Yang, T. D. Lee and Steven Weinberg among others, Prof Huang made significant contributions to the field of statistical physics and received much praise in return. The seven volumes he published with World Scientific were best sellers and reflected the diverse range of interests that he pursued. Among the most popular of his works is his translation of the I Ching which remains a book often associated with him. In his last book with World Scientific, *A Superfluid Universe*, he introduced readers to his proposed theory of dark energy and dark matter.

After Prof Huang became professor emeritus in 1999, he remained with the CTP until 2005 before retiring to Florida. In recent years, he was a visiting professor at the Nanyang Technological University in Singapore. A fellow of both the American Physical Society and the American Academy of Arts and Letters, Prof Huang was the recipient of fellowships from the Alfred P. Sloan, John Simon Guggenheim, and Fulbright Foundations.

An Overview of Kerson Huang's titles with World Scientific



Editor-in-Chief of WSPC's SRL Awarded Future Science Award in Physical Science



World Scientific is proud to announce that the Editor-in-Chief of its Surface Review Letter, Prof Qi-Kun Xue, has been awarded the inaugural Future Science Award (in Physical Science).

Born in Shandong Province in 1963, Prof Xue completed his PhD in Condensed Matter Physics at the Institute of Physics, Chinese Academy of Sciences in 1994. He is currently a professor at Tsinghua University in Beijing. Prof Xue was awarded the prize for his ground-breaking discoveries of novel quantum phenomena through the use of molecule beam epitaxy and research into materials that could be useful for low-power electronics and quantum computing. Xue has also been associated with the discovery of an exotic behaviour of electrons in materials held at very low temperatures.

Regarded as the Chinese equivalent of the Nobel Prize, the Future Science Awards was launched by private organisations in January 2016. The awards seek to provide recognition for scientists who have made outstanding contributions in the Greater China region, regardless of their citizenship. The committee and criteria for the prize were established in accordance with the best practices of top international prizes such as the Nobel Prize.

"The Future Science Prize is the first science prize initiated by private capital, founded by entrepreneurs and businessmen. The Future Science Prize fills a gap in China's growth in science and technology research. The Future Science Prize is a new aid to the goal of building a vibrant science and technology system in China."

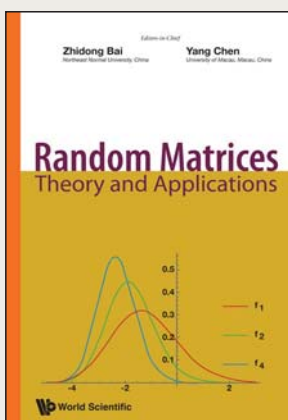
- CN Yang (1957 Nobel Laureate in Physics)



About Surface Review and Letters

This international journal is devoted to the explanation of properties and processes that occur at the boundaries of materials. The scope of the journal is broad and covers a range of topics in experimental and theoretical studies of surfaces and interfaces. Both physical and chemical properties are covered. The journal also focuses on emerging areas of cross-disciplinary research where new phenomena occur due to the presence of a surface or an interface. Representative areas include surface and interface structures; their electronic, magnetic and optical properties; dynamics and energetics; chemical reactions at surfaces; phase transitions, reconstruction, roughening and melting; defects, nucleation and growth; and new surface and interface characterisation techniques.

Readers who wish to gain access to the journal are invited to visit the following webpage <http://www.worldscientific.com/worldscinet/srl>



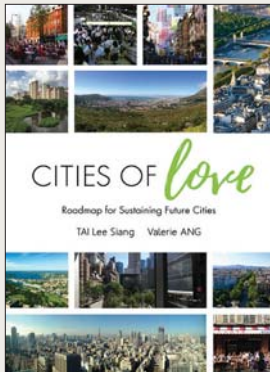
RMTA Joins List of World Scientific SCIE Indexed Journals

World Scientific is pleased to announce its journal, Random Matrices: Theory and Applications, has been accepted for Thomson Reuters' Science Citation Index-Expanded (SCIE) including the Web of Science, ISI Alerting Service as well as Current Contents/Physical, Chemical & Earth Sciences (CC/PC&ES) from volume 4(1) 2015.

<http://www.worldscientific.com/worldscinet/rmta>



World Scientific Launches Book on Sustainable Cities with Ground Breaking AR App



On 9 September 2016, World Scientific launched *Cities of Love: Roadmap for Sustaining Future Cities*, a forward-thinking book that presents the possibilities and benefits of a truly sustainable city, at the Green Living 2016 conference at Marina Bay Sands Expo and Convention Centre, Singapore. Well-attended by architects and industry professionals, the launch brought together professional expertise and interest groups eager to spread the message of sustainability, such as Bjorn Low, co-founder of Edible Gardens as well as the public. A ground-breaking augmented reality feature was included in the book which allows readers to witness a model sustainable city unfold right in front of their eyes, bringing interactivity to a whole new level.

Authored by Mr Tai Lee Siang, Chair of the World Green Building Council and Ms Valerie Ang, the book draws inspiration from numerous cities across the world, such as Seoul, Tokyo, Paris, London, Sydney, Amsterdam, and even Singapore. Presenting 12 ingredients that make a city sustainable, the authors demonstrate how bringing together just one or two of the ingredients

would multiply the benefits enjoyed by a city.

The augmented reality (AR) app will be ready for download (from the App store and Google Play store) in December 2016. Readers will be able to scan the book to see new photos and videos of the authors exploring urban developments around the world and could be inspired to push for similar developments in their cities.

Readers may purchase a copy of the book on WSPC's online store by accessing this link <http://www.worldscientific.com/worldscibooks/10.1142/10281>

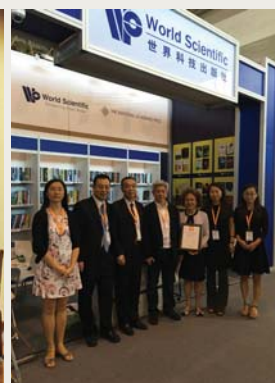


World Scientific Marks 30 Years of Cooperation with BIBF

World Scientific Publishing Group (World Scientific) welcomed many old and new friends at its booth at the 23rd Beijing International Book Fair (BIBF). Held at the China International Exhibition Center (New Venue), the fair marked 30 years of cooperation between BIBF and World Scientific. At the event, World Scientific saw many visits by Mainland Chinese agents and distributors as well as head librarians while engaging in discussions with several publishers on issues such as copyrights and publishing deals.

During the fair, World Scientific opened up new sales channels, launched fruitful negotiations and developed new platforms of new cooperation with Chinese partners. All varieties of books will soon be made available for Chinese online sales through the Readlink platform while discussions are underway to launch data sharing and cooperation with eReading platform on e-book sales. In addition, after successfully cooperating with China National Knowledge Infrastructure (CNKI), World Scientific is working with Wanfang Data to promote information releases on all varieties of electronic publications.

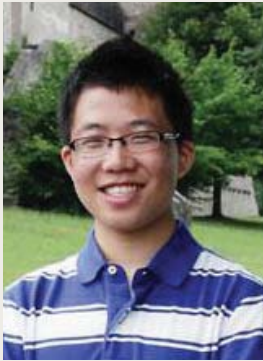
At BIBF, World Scientific presented at the "Internet + Scientific Publishing International cooperation seminar" and the "China Academy of Social Sciences Forum (2016) – The Publication and Broadcast of Think Tank Reports".



As 2016 marks the 30th anniversary of the BIBF, World Scientific received the BIBF30 Anniversary Honorary Exhibitor Award. World Scientific looks forward to continued efforts in promoting scientific publishing and making new contributions in the "Internet +" era with industry partners such as BIBF.

News

WSPC Sponsors WSPC-ICAAS Most Outstanding Junior College Science Student for Nobel Award Ceremony



The recipient of the WSPC-ICAAS Most Outstanding Junior College Science Student Award 2016 is Nan Zhihan, a student at NUS High School of Mathematics and Science. As the winner, Mr Nan will be attending the Stockholm International Youth Science Seminar (SIYSS), held in early December 2016, as Singapore's representative. Since the inaugural award in 1999, 17 students have represented Singapore at the Stockholm International Youth Science Seminar (SIYSS) held each December in Sweden in conjunction with the Nobel Prize Award Ceremony. The student is provided with an invaluable opportunity to interact with other young scientists, visit Swedish science institutes, and attend the Award Ceremony, Nobel Banquet, Nobel lectures as well as other events. The trip is fully sponsored by World Scientific Publishing Company.

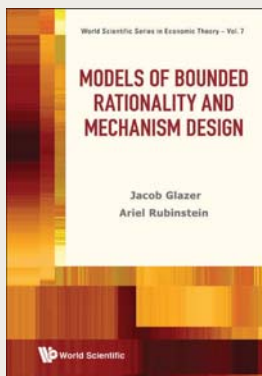
The WSPC-ICAAS Most Outstanding Junior College Science Student Award is presented annually to an outstanding junior college science student with high academic achievements, an ability to explain scientific results, and the determination to address difficult problems and issues. Jointly awarded by the World Scientific Publishing Company and the Imperial College Alumni Association of Singapore, the award seeks to stimulate interest in scientific issues and promote international understanding and friendship through scientific and cultural exchanges between students. The winner of the award is selected in a two-round process. First, the Singapore Ministry of Education shortlists about 20 qualified candidates. The recipient is subsequently selected by a panel of eminent scientists and educators.

Social Sciences Title

World Scientific Series in Economic Theory: Volume 7

Models of Bounded Rationality and Mechanism Design

By: **Jacob Glazer** (Tel Aviv University, Israel & The University of Warwick, UK), **Ariel Rubinstein** (Tel Aviv University, Israel & New York University, USA)



This volume is a collection of the authors' joint papers over a period of more than twenty years. The collection includes seven papers, each of which presents novel and rigorous models of Economic Theory within the domain of implementation and mechanism design theories. These theories attempt to explain how incentive schemes and organizations may be designed with the goal of inducing agents to behave according to the designer's (principal's) objectives. While the majority of contemporary literature assumes that agents are fully rational, the authors have injected into each model elements which conflict with the standard notion of full rationality, demonstrating how such elements can dramatically change the mechanism design problem. The authors have chosen to focus on the formal modeling of bounded rationality where procedural elements of reasoning inconsistent with full rationality exist. A journey into the modeling of bounded rationality, these articles introduce a variety of modeling devices that will capture procedural elements not previously considered and which alter analysis of the model.

A refreshing read for graduate and research students of economic theory, professionals working with economic theory and behavioural economics.

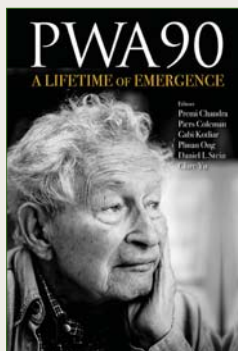
<http://www.worldscientific.com/worldscibooks/10.1142/10069>



Reviews

CERN
COURIER

Sept and Oct issues Feature 11 World Scientific Titles



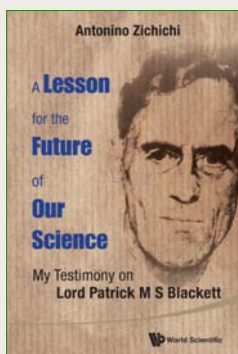
PWA90: A Lifetime Of Emergence

By P Chandra, P Coleman, G Kotliar, P Ong, D L Stein and C Yu (eds)

"In December 2013, a community of physicists gathered in Princeton on the occasion of Philip Warren Anderson's 90th birthday to celebrate the achievements of his remarkable career. This book is the result of the event, and collects a number of intriguing and lively contributions from Anderson's students, collaborators and distinguished colleagues, which will appeal to both high-energy and condensed-matter physicists.

Relatively short, it contains accurate and stimulating accounts of various hot topics that are popular in condensed-matter theory, starting from the ubiquitous mechanism of the localisation of waves in random media"

<http://www.worldscientific.com/worldscibooks/10.1142/9882>

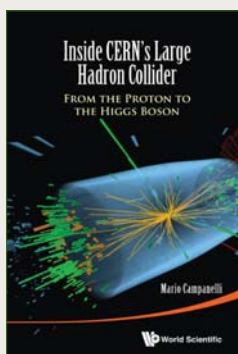


A Lesson for the Future of Our Science: My Testimony on Lord Patrick M S Blackett

By A Zichichi

"Rich in personal anecdotes, pictures and appendices, the book could appeal to physicists and students who are also interested in the history of science and in the human dimension of great scientists. "

<http://www.worldscientific.com/worldscibooks/10.1142/9767>



Inside CERN's Large Hadron Collider: From the Proton to the Higgs Boson

By Mario Campanelli

"Written in a fluid style, this book would appeal to those who, even if not completely unfamiliar with the topic, know little about collider physics, CERN and its experiments."

<http://www.worldscientific.com/worldscibooks/10.1142/9507>



Experimental Studies of Neutrino Oscillations

By Takaaki Kajita

<http://www.worldscientific.com/worldscibooks/10.1142/9952>

Macroscopic Electrodynamics:

An Introductory Graduate Treatment

By W Wilcox and Chris Thron

<http://www.worldscientific.com/worldscibooks/10.1142/9235>

An Introduction to Graphene Plasmonics

By P A D Gonçalves and N M R Peres

<http://www.worldscientific.com/worldscibooks/10.1142/9948>

Trapped Charged Particles:

A Graduate Textbook with Problems and Solutions

By M Knoop, N Madsen and R C Thompson

<http://www.worldscientific.com/worldscibooks/10.1142/q0004>

60 Years of Yang–Mills Gauge Field Theories: C N Yang's Contributions to Physics

By L Brink and K K Phua (eds)

<http://www.worldscientific.com/worldscibooks/10.1142/9829>

Cosmology with MATLAB

By Dan Green

<http://www.worldscientific.com/worldscibooks/10.1142/10000>

Life on the Cusp

By Weimin Wu

<http://www.worldscientific.com/worldscibooks/10.1142/9331>

Memorial Volume for Y Nambu

By Lars Brink, Lay Nam Chang, Moo-Young Han and Kok Khoo Phua (eds)

<http://www.worldscientific.com/worldscibooks/10.1142/9998>