

A satellite image of a large hurricane with a distinct eye, positioned over the Gulf of Mexico. The surrounding landmasses are visible in shades of green and brown, with white clouds swirling around the storm's center.

CLIMATE CHANGE

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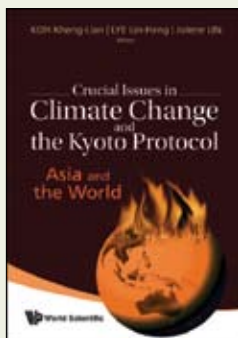


Imperial College Press
www.icpress.co.uk

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CRUCIAL ISSUES IN CLIMATE CHANGE AND THE KYOTO PROTOCOL

Asia and the World
 edited by **Koh Kheng-Lian, Lye Lin Heng & Jolene Lin**
 (Asia Pacific Centre of Environmental Law, National University of Singapore)

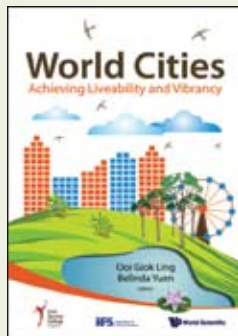


Crucial Issues in Climate Change and the Kyoto Protocol: Asia and the World focuses on responses to climate change in the world's most populous region. This book provides the most comprehensive insight to the climate change discourse within Asia to date by drawing on the diverse disciplines and experience of legal practitioners, climate change consultants, government officials and academics. Individual chapters address issues such as how the various Asian countries — highly disparate in their cultures, socio-economic conditions and political systems — are responding to climate change, the challenges of mitigating and adapting to climate change, and the effective implementation of the Kyoto Protocol in Asia.

596pp Sept 2009
 978-981-4277-52-5 US\$98 £74
 978-981-4277-53-2(ebk) US\$127

WORLD CITIES

Achieving Liveability and Vibrancy
 edited by **Ooi Giok Ling**
 (Nanyang Technological University, Singapore) & **Belinda Yuen** (National University of Singapore, Singapore)



How does a city make sound policy decisions on sustainability and governance while simultaneously promoting economic growth and development excellence? This book focuses on the major challenges that world cities are facing in such key areas as governance, social inclusiveness, infrastructural development, financial solvency as well as environmental and ecological sustainability. Based on case studies from cities in North America, Europe, and the Asia-Pacific, this collection of essays brings together some of the top academics, professionals and policymakers from the world over and presents their views on how to best strike the balance between growth and sustainability. The range of perspectives, ideas and depth of information makes this an invaluable resource for researchers, city planning professionals and policymakers in environment, urban development and urban economic planning.

336pp Aug 2009
 978-981-4280-71-6 US\$58 £44
 978-981-4280-73-0(ebk) US\$75

ENERGY, THE ENVIRONMENT AND CLIMATE CHANGE

by **Peter E Hodgson** (University of Oxford, UK)

This book is a comprehensive account of all significant energy sources, evaluated according to their capacity, reliability, cost, safety and effects on the environment. Non-renewable sources (for example, coal, oil, gas and nuclear fuel) together with renewable sources like wood, hydro, biomass, wind, solar, geothermal, ocean thermal, and tidal; are considered. Also, nuclear radiations and the disposal of nuclear waste and the future of nuclear power are assessed, as well as pollution and acid rain, the greenhouse effects and climate change. Its social, political and moral problems are discussed, with a special mention of the opposition to nuclear power.

200pp (approx.) Spring 2010
 978-1-84816-415-4 US\$78 £59
 978-1-84816-417-8(ebk) US\$101

CLIMATE AND SOCIETY

Climate as Resource, Climate as Risk
 by **Nico Stehr** (Zeppelin Universität, Germany)
 & **Hans von Storch** (GKSS Research Centre, Germany)

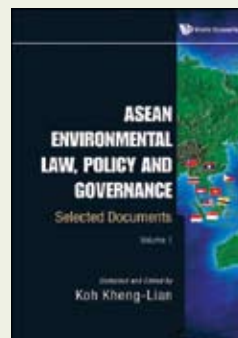


Climate and Society presents from a transdisciplinary view, climate and its changes, impact and perception. The history of climate and its different approaches over time — which are anthropocentric and more system-oriented, academic and application-driven — are reviewed, as are the possibilities of managing climate, in particular by steering the greenhouse gas emissions. Most importantly, the concepts of climate as a resource for societies are discussed and the emergence of climate non-constancy and its impact, studied. In essence, this book provides an absorbing account of the cultural history of climate and relates it to contemporary scientific knowledge about climate, climate change and its impact.

152pp Aug 2009
 978-981-4280-53-2 US\$60 £45
 978-981-4280-54-9(ebk) US\$78

ASEAN ENVIRONMENTAL LAW, POLICY AND GOVERNANCE

Selected Documents (Volume I)
 compiled and edited by **Koh Kheng-Lian**
 (National University of Singapore, Singapore)



ASEAN Environmental Law, Policy and Governance: Selected Documents, in two volumes, contains a judicious compilation of relevant ASEAN environmental instruments. These documents deal with ASEAN's progressive development of environmental law, policy and governance. Volume I consists of two parts. Part I — "Setting the Stage for ASEAN Environmental Cooperation, Harmonization and Integration" — contains documents which are directly or indirectly related to various aspects of the environment, including their potential impact.

736pp Jun 2009
 978-981-4261-18-0 US\$120 £90
 978-981-4261-19-7(ebk) US\$156

THE PROCEEDINGS OF THE 1ST ASIA-PACIFIC WATER SUMMIT

Beppu City, Japan 3 – 4 December 2007
 edited by **Secretariat of the 1st Asia-Pacific Water Summit**

This prestigious volume consists of summaries of sessions cover matters relating to sanitation, climate change, water financing and capacity development, water-related disaster management, water for development and ecosystems, developing knowledge and lessons, increasing local capacity, monitoring investments and results, and the CEO Water Mandate.

268pp Jun 2008
 978-981-283-327-3(pbk) US\$57 £33
 978-981-283-328-0(ebk) US\$74

CLIMATE CHANGE POLICY MISTAKES

by **Howard A. Latin** (Rutgers University, USA)

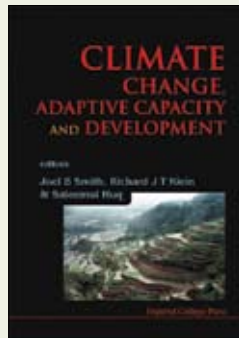
This book argues that the consensus emissions-reduction programs will be much "too little, too late," and will allow climate change dangers to grow steadily worse over time and the only sensible way to curtail climate change harms is to replace "dirty" GHG sources to the greatest extent feasible with comparable "clean" GHG-free technologies that can achieve increased economic and social development without further damaging our climate.

200pp (approx.) Winter 2010
 978-981-4307-27-7 US\$55 £41

CLIMATE CHANGE ■ Policy

CLIMATE CHANGE, ADAPTIVE CAPACITY AND DEVELOPMENT

edited by **Joel B Smith** (*Stratus Consulting Inc, USA*), **Richard J T Klein** (*Potsdam Institute for Climate Impact Research, Germany*) & **Saleemul Huq** (*International Institute for Environment and Development, UK*)

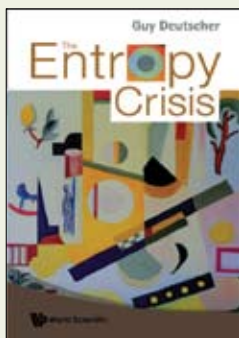


The Potsdam Institute for Climate Impact Research and Stratus Consulting organized a workshop in the fall of 2001 to develop an agenda for research on how best to enhance the capacity of developing countries to adapt to climate change. The workshop brought together experts from developing and industrialized countries, non-governmental organizations, and multilateral and bilateral donor organizations to discuss a number of important topics related to adaptation, adaptive capacity and sustainable development. A dozen papers were commissioned to cover these topics, both from a theoretical perspective and in the form of national case studies. The papers form the basis for this important book, which presents the latest interdisciplinary knowledge about the nature and components of adaptive capacity and how it may be strengthened.

356pp **Aug 2003**
 978-1-86094-373-7 **US\$104** **£79**
 978-1-86094-581-6(ebk) **US\$137**

THE ENTROPY CRISIS

by **Guy Deutscher** (*Tel Aviv University, Israel*)

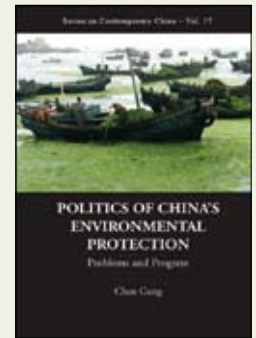


This book aims to prove that the so-called “energy crisis” is really an entropy crisis. Since energy is conserved, it is clear that a different concept is necessary to discuss meaningfully the problems posed by energy supplies and environmental protection.

Contents: Dealing with Entropy on a Daily Basis; A Short History of the Biosphere; How Much Energy Do We Need?; Entropy in Thermodynamics and Our Energy Needs; Climate Change: What We Know and What We Don't; Fighting Entropy with Technology; Towards a World Without Fossil Fuels; A Changing World.

184pp **Oct 2008**
 978-981-277-968-7 **US\$51** **£30**
 978-981-277-969-4(pbk) **US\$30** **£17**
 978-981-277-970-0(ebk) **US\$66**

Series on Contemporary China – Vol. 17
POLITICS OF CHINA'S ENVIRONMENTAL PROTECTION Problems and Progress
 by **Chen Gang** (*East Asian Institute, National University of Singapore*)

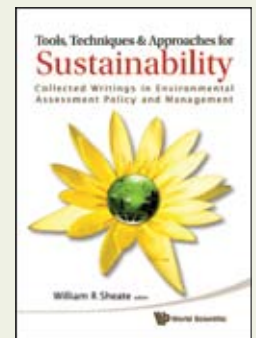


This book analyzes the factors in China's governance and political process that affect and restrain its capacity to handle the mounting environmental problems. It argues that solutions to China's ecological woes to a larger extent lie in the political and institutional changes rather than in engineering, technological and investment input. The book also includes discussion of China's climate change policy not only because global warming has come under the limelight of the international community in recent years, but also because it offers a unique dimension to analyze the country's environmental diplomacy and domestic bureaucratic structure on emissions cutting and related energy issues.

200pp **May 2009**
 978-981-283-869-8 **US\$68** **£51**

TOOLS, TECHNIQUES AND APPROACHES FOR SUSTAINABILITY

Collected Writings in Environmental Assessment Policy and Management
 edited by **William R Sheate** (*Imperial College London and Collingwood Environmental Planning, UK*)



This unique volume brings together key writings from experts drawn from the first ten years of the *Journal of Environmental Assessment Policy and Management (JEAPM)*, launched in 1999 as a forum for encouraging better linkages between environmental assessment and management tools. The book is structured around four themes that focus on the characteristics of tools that influence their ability to link together effectively: The Nature of Tools; The Nature of Decision-Making and Institutional Context; The Nature of Engagement and The Nature of Sustainability. Key authors include Roland Clift, David Gadenne, Robert Gibson, Neils Faber, Thomas Fischer, David Lawrence, Måns Nilsson, Bronwyn Ridgway, and Frank Vanclay.

420pp **Sept 2009**
 978-981-4289-68-9 **US\$82** **£62**
 978-981-4291-17-0(pbk) **US\$48** **£36**
 978-981-4289-69-6(ebk) **US\$107**

CLIMATE CHANGE ■ Economics

World Scientific Series on Energy and Resource Economics

HISTORICAL ENERGY STATISTICS

Global, Regional and National Trends Since Industrialization
 by **T S Gopi Rethinaraj** (*National University of Singapore*) & **Clifford E Singer** (*University of Illinois at Urbana–Champaign, USA*)

This essential book presents a comprehensive statistical survey of global and regional energy trends since early industrialization, primarily based on 19th- and 20th-century records from various European and Western Hemisphere sources. Besides containing up-to-date information, it also traces trends from before the 1980s in global, regional and national energy histories. The time series data from earlier years are systematically patched to current political boundaries and officially reported data since the formation of the UN and changes since the end of the Cold War. The result of this careful reconstruction is a consistent country-by-country time series dataset for production and consumption of commercially-traded primary energy sources. A first in its field, this reference volume is an invaluable resource for those working on energy, environment and climate issues.

400pp (approx.) **Winter 2010**
 978-981-270-739-0 **US\$118** **£62**
 978-981-270-871-7(ebk) **US\$152**

World Scientific Series on Energy and Resource Economics

THE IMPLICATIONS OF CHINA'S RISING ENERGY USE

by **Peter Sheehan** (*Victoria University, Australia*)

This important book focuses on the explosion of energy use that has taken place in China since 2001, far beyond any expectations. To understand the reasons for this change, the period of declining energy intensity from 1979–2001 is analyzed, together with the changing nature of China's development path. The changes that have taken place in energy institutions, structures and policies are then reviewed. This provides the basis for interpreting the surge in energy use over 2001–2007, and for analyzing the policy issues and options available to the Chinese government as it attempts to rein in energy use and reduce the damage that this is causing. Finally, the implications of China's energy use for global climate change — a topic of increasing interest worldwide — are discussed.

200pp (approx.) **Fall 2010**
 978-981-279-406-2 **US\$69** **£36**
 978-981-279-407-9(ebk) **US\$89**

World Scientific Series on *Earth System Science in Asia*

The *World Scientific Series on Meteorology of East Asia (WSS-MEA)* is being expanded into a new book series entitled "*World Scientific Series on Earth System Science in Asia (WSS-ESSA)*". This major expansion reflects the rising priority of the World Scientific Publishing Company (WSPC) on the Earth System Science, including the study of the elements of and interactions between the atmosphere, hydrosphere, geosphere, and biosphere, and their interactions with human activities over Asia and its surrounding oceans.

The new WSS-ESSA book series will publish monographs and collections of papers from conferences and special programs or projects. The monographs include the three volumes published previously under the WSS-MEA series, which will be relabeled Vol. 1 to 3 of the WSS-ESSA series.

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Vol. 4

GLOBAL PERSPECTIVES ON TROPICAL CYCLONES

From Science to Mitigation

edited by **Johnny C L Chan** (*City University of Hong Kong, China*) & **Jeffrey D Kepert** (*Centre for Australian Weather and Climate Research, Australia*)

This book is a completely rewritten, updated and expanded new edition of the original *Global Perspectives on Tropical Cyclones* published in 1995. It presents a comprehensive review of the state of science and forecasting of tropical cyclones together with the application of this science to disaster mitigation, hence the tag: *From Science to Mitigation*.

Since the previous volume, enormous progress in understanding tropical cyclones has been achieved. The growth in observational capability is reflected by the inclusion of three new chapters on this topic. The chapter on the effects of climate change on tropical cyclone activity is also new, and appropriate given the recent intense debate on this issue. The advances in the understanding of tropical cyclones which have led to significant improvements in forecasting track, intensity, rainfall and storm surge, are reviewed in detail over three chapters. For the first time, a chapter on seasonal prediction is included. The book concludes with an important chapter on disaster mitigation, which is timely given the enormous loss of life in recent tropical cyclone disasters.

500pp (approx.) Spring 2010
 978-981-4293-47-1 US\$118 £89
 978-981-270-141-1 (ebk) US\$153

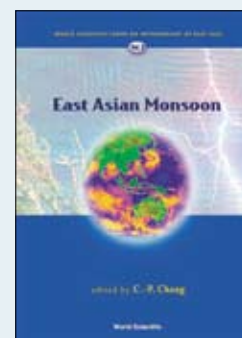
Forthcoming

Vol. 3

OBSERVATION, THEORY AND MODELING OF ATMOSPHERIC VARIABILITY

Selected Papers of Nanjing Institute of Meteorology Alumni in Commemoration of Professor Jijia Zhang

edited by **Xun Zhu** (*Johns Hopkins University, USA*), **Xiaofan Li** (*NOAA, USA*), **Ming Cai** (*Florida State University, USA*), **Shuntai Zhou, Yuejian Zhu** (*NOAA, USA*), **Fei-Fei Jin** (*University of Hawaii, USA*), **Xiaolei Zou** (*Florida State University, USA*) & **Minghua Zhang** (*State University of New York, Stony Brook, USA*)



This book contains tutorial and review articles as well as specific research letters that cover a wide range of topics: (1) dynamics of atmospheric variability from both basic theory and data analysis, (2) physical and mathematical problems in climate modeling and numerical weather prediction, (3) theories of atmospheric radiative transfer and their applications in satellite remote sensing, and (4) mathematical and statistical methods. The book can be used by undergraduates or graduate students majoring in atmospheric sciences, as an introduction to various research areas; and by researchers and educators, as a general review or quick reference in their fields of interest.

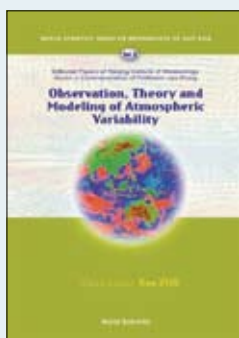
640pp Feb 2004
 978-981-238-704-2 US\$164 £125
 978-981-279-113-9 (ebk) US\$211

Vol. 2

EAST ASIAN MONSOON

edited by **C-P Chang** (*Naval Postgraduate School, USA*)

The East Asian summer monsoon has complex space and time structures that are distinct from the South Asian summer monsoon. It covers both subtropics and mid-latitudes and its rainfall tends to be concentrated in rain belts that stretch for many thousands of kilometers and affect China, Japan, Korea, and the surrounding areas. The East Asian summer monsoon is also closely linked with the West Pacific summer monsoon. Both are part of the global climate system and are affected by El Nino-Southern Oscillation (ENSO) and surface temperature variations in the western Pacific and surrounding oceans, the tropospheric biennial oscillation, and the South Asian summer monsoon.



Because of its impacts on nearly one-third of the world's population and on the global climate system (including effects on the climate change), the study of the East Asian monsoon has received increased attention both in East Asian countries and in the United States. This book presents reviews of recent research on the subject.

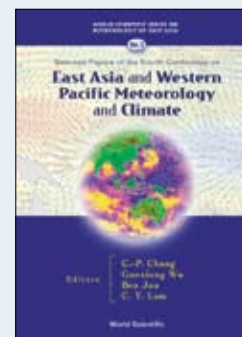
572pp Nov 2004
 978-981-238-769-1 US\$135 £86
 978-981-270-141-1 (ebk) US\$175

Vol. 1

EAST ASIA AND WESTERN PACIFIC METEOROLOGY AND CLIMATE

Selected Papers of the Fourth Conference Hangzhou, China 26 – 28 October 1999

by **C-P Chang** (*Naval Postgraduate School, USA*), **Guoxiong Wu** (*Chinese Academy of Sciences, China*), **Ben Jou** (*National Taiwan University, Taiwan*) & **C Y Lam** (*Hong Kong Observatory, Hong Kong*)



This volume is a collection of selected papers of the Fourth Conference on East Asian and Western Pacific meteorology and climate. It covers remote sensing, atmospheric physics and chemistry, and the impact of aircraft emissions on atmospheric composition, as well as traditional topics like typhoons, rainstorms, monsoons and climate.

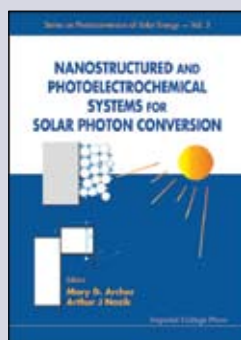
452pp Mar 2002
 978-981-02-4908-3 US\$107 £86
 978-981-277-774-4 (ebk) US\$139

Series on Photoconversion of Solar Energy

Vol. 3

NANOSTRUCTURED AND PHOTOELECTROCHEMICAL SYSTEMS FOR SOLAR PHOTON CONVERSION

edited by **Mary D Archer** (Imperial College, UK) & **Arthur J Nozik** (National Renewable Energy Laboratory, USA)



"... there is a good coherence to the book's structure despite the contributions from multiple authors. The coherence is assisted by an excellent introductory chapter by Archer, as well as consistency in formatting and figure style throughout the book ... this book will serve as an excellent resource for practitioners who want to find out more information about any of the included topics ... the book is a must-read for scientists wanting to familiarize themselves with the field of solar energy conversion beyond silicon-based solar cells. This is a scholarly treatise written by the experts that is sure to become an important resource."

Journal of the American Chemical Society

"This book provides an excellent overview of nano-structured and photochemical systems for solar photon energy conversion ... a historic overview is given as well — to an extent difficult to find elsewhere ... It provides access to the latest findings in these rapidly developing fields and is certainly suitable for PhD students, and researchers with backgrounds both in physics and chemistry."

Dr Christian Köngstein
European Patent Office

Key Feature

- Includes contributions from authors with international reputations (e.g. Arthur Nozik, Nathan Lewis, Michael Grätzel)

780pp **Aug 2008**
978-1-86094-255-6 **US\$196** **£112**
978-1-84816-154-2(ebk) **US\$253**

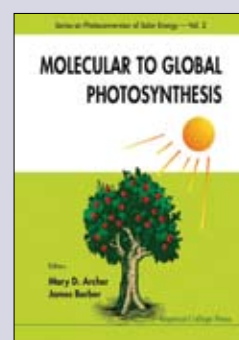
Vol. 2

MOLECULAR TO GLOBAL PHOTOSYNTHESIS

edited by **Mary D Archer** & **James Barber** (Imperial College, UK)

Green plants and photosynthetic organisms are the Earth's natural photoconverters of solar energy. In future, biomass and bioenergy will become increasingly significant energy sources, making a contribution both to carbon dioxide abatement and to the security, diversity and sustainability of global energy supplies. In this book, experts provide a series of authoritative chapters on the intricate mechanisms of photosynthesis and the potential for using and improving photosynthetic organisms, plants and trees to sequester carbon dioxide and to provide fuel and useful chemicals for the benefit of man.

788pp **May 2004**
978-1-86094-256-3 **US\$217** **£168**
978-1-86094-549-6(ebk) **US\$283**

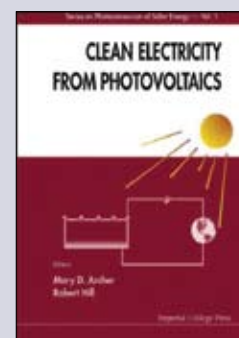


Vol. 1

CLEAN ELECTRICITY FROM PHOTOVOLTAICS

edited by **Mary D Archer** (Imperial College, UK) & **Robert Hill** (University of Northumbria, UK)

"... is an excellent resource for its intended readership of students, scientists and technologists working in the area ... it is well indexed, and includes a handy list of useful web and library references. At the very least, the book deserves a place in the library of every research institution and company working on renewable energy."



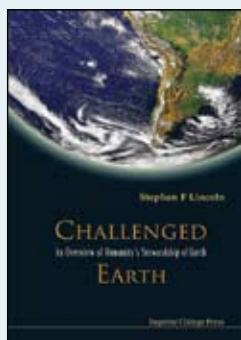
868pp **Jun 2001**
978-1-86094-161-0 **US\$127** **£94**
978-1-84816-150-4(ebk) **US\$165**

Nature

CHALLENGED EARTH

An Overview of Humanity's Stewardship of Earth

by **Stephen F Lincoln** (University of Adelaide, Australia)



This timely book provides a comprehensive insight into the challenges facing humanity and Earth in the 21st century. It opens with a discussion of the domination of all the continents and oceans by a growing human population. This is followed by an appraisal of the extent to which water and food supplies will be able to accommodate this population, which may reach eleven billion by 2100. The rapidly increasing ability to change biology and evolution through genomics is considered next and complements a discussion of disease, which is viewed largely as an evolutionary struggle between humanity and pathogens. A seemingly insatiable demand for energy, future energy supplies and the impact of their use on climate and attempts to ameliorate these effects are next examined.

548pp **Jan 2006**
978-1-86094-526-7 **US\$70** **£43**

Royal Society Series on Advances in Science – Vol. 2

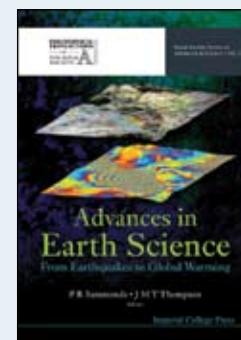
ADVANCES IN EARTH SCIENCE

From Earthquakes to Global Warming

edited by **P R Sammonds** (University of College London, UK) & **J M T Thompson** (University of Cambridge, UK)

Advances in Earth Science outlines the latest developments and new research directions currently being made world-wide in the earth sciences. It contains invited and refereed articles by leading younger researchers on their cutting-edge research, but aimed at a general scientific audience. This exciting volume explains how powerful methodologies such as satellite remote sensing and supercomputing simulations are now profoundly changing research in the earth sciences; how the earth system is increasingly being viewed in a holistic way, linking the atmosphere, ocean and solid earth; and how the societal impact of the research in the earth sciences has never been more important.

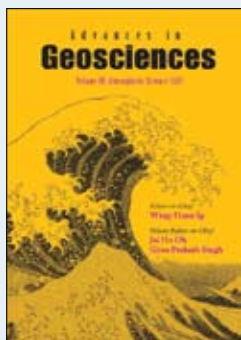
344pp **Jun 2007**
978-1-86094-761-2 **US\$104** **£63**
978-1-86094-762-9(pbk) **US\$45** **£25**
978-1-86094-871-8(ebk) **US\$143**



ADVANCES IN GEOSCIENCES

Volume 10: Atmospheric Science (AS)
Volume Editors-in-Chief: **Jai Ho Oh**
(Pukyong National University, Korea)
 & **Gyan Prakash Singh** *(Banaras Hindu University, India)*

Atmospheric Science (AS), is part of a 6-Volume set *Advances in Geosciences*, the result of a concerted effort to bring together the latest results and planning activities related to earth and space science in Asia and the international arena. The volume editors are all leading scientists in their research fields covering six sections: Atmospheric Science (AS), Hydrological Science (HS), Ocean Science (OS), Solid Earth (SE), Solar Terrestrial (ST) and Planetary Science (PS).



This volume is abstracted in NASA's Astrophysics Data System:
<http://ads.harvard.edu>

224pp **May 2009**
978-981-283-611-3 **US\$120** **£90**
978-981-283-612-0(ebk) **US\$165**

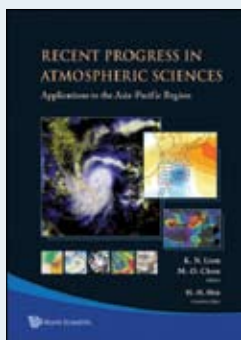
For more information on other volumes in the *Advances in Geosciences* 6-Volume set, please visit our website at <http://www.worldscibooks.com/environsci/7073.html>.

RECENT PROGRESS IN ATMOSPHERIC SCIENCES
Applications to the Asia-Pacific Region

edited by **K N Liou** *(University of California, Los Angeles, USA)* & **M D Chou** *(National Taiwan University, Taiwan)*

This book contains 22 peer-reviewed articles that cover a spectrum of contemporary subjects relevant to atmospheric sciences, with specific applications to the Asia-Pacific region.

The book is divided into 2 traditional fields in atmospheric sciences: atmospheric dynamics and meteorology; and atmospheric physics and chemistry. The authors of these papers are distinguished alumni of the Department of Atmospheric Sciences at the National Taiwan University, residing in the USA and Taiwan. This book is dedicated to the 50th anniversary of the Department of Atmospheric Sciences that occurred in 2004.

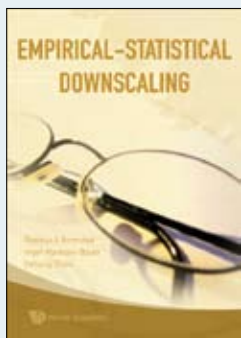


496pp **Dec 2008**
978-981-281-890-4 **US\$125** **£74**
978-981-281-891-1(ebk) **US\$162**

EMPIRICAL-STATISTICAL DOWNSCALING

by **Rasmus E Benestad, Inger Hanssen-Bauer** *(The Norwegian Meteorological Institute, Norway)* & **Deliang Chen** *(University of Gothenburg, Sweden)*

Empirical-statistical downscaling (ESD) is a method for estimating how local climatic variables are affected by large-scale climatic conditions. ESD has been applied to local climate/weather studies for years, but there are few — if any — textbooks on the subject. It is also anticipated that ESD will become more important and commonplace in the future, as anthropogenic global warming proceeds. Thus, a textbook on ESD will be important for next-generation climate scientists.



228pp **Sept 2008**
978-981-281-912-3 **US\$61** **£36**

Series on the Science of Climate Change – Vol. 2
MOIST PROCESSES IN THE CLIMATE SYSTEM

A Global Perspective from Earth Observations
 edited by **Graeme L Stephens** *(Colorado State University, USA)*

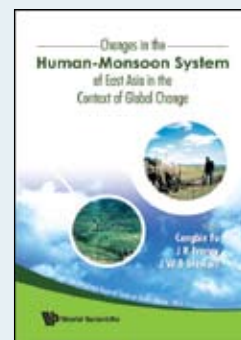
Contents: Energy and Water Budgets of Earth: An Overview (*Stephens & L'Ecuyer*); Remote Sensing of Moist Processes: General Principles (*Hogan & Stephens*); Global Observations of Cloud Systems from Space (*Mace*); Global Observations of Precipitation from Space (*Berg & L'Ecuyer*); Convective Processes (*Luo*); Precipitation Processes (*Suzuki*); Characteristic Properties of Water and Ice Clouds (*Waliser & Li*); Aerosol Interactions I Warm Clouds (*Lebsock & Sorooshian*); Aerosol Interactions II Convection (*Van Den Heever*); Moist Processes and Climate Change (*Allan & Soden*).

220pp (approx.) **Winter 2010**
978-1-84816-551-9 **US\$86** **£65**
978-1-84816-553-3(ebk) **US\$112**

Monsoon Asia Integrated Regional Study on Global Change – Vol. 1
CHANGES IN THE HUMAN-MONSOON SYSTEM OF EAST ASIA IN THE CONTEXT OF GLOBAL CHANGE

edited by **Congbin Fu** *(Chinese Academy of Sciences, China)*, **J R Freney** *(CSIRO, Plant Industry, Australia)* & **J W B Stewart** *(Salt Spring Island, British Columbia, Canada)*

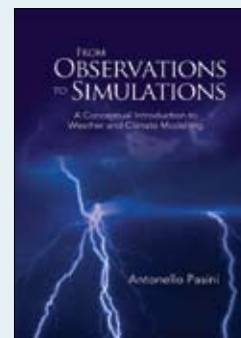
This book is the first in a series of assessments of regional climate change. Irreversible changes to regional biogeochemistry, and terrestrial and marine ecosystem functioning are brought about by increases in population, intensified land use, urbanization, industrialization and economic development. These may have global as well as regional consequences. The objectives of the assessments are, (i) to better understand how human activities in regions are altering regional atmospheric, terrestrial, and marine environments, (ii) to provide a sound scientific basis for sustainable regional development, and (iii) to develop the capability of predicting changes in global-regional linkages in the Earth System and to recognize the future consequences of such changes. This book describes such a study for monsoon East Asia, providing a state-of-the-art summary of what we already know, and serves as a basis for identifying knowledge gaps that require study.



384pp **Jul 2008**
978-981-283-241-2 **US\$93** **£55**
978-981-283-242-9(ebk) **US\$121**

FROM OBSERVATIONS TO SIMULATIONS
A Conceptual Introduction to Weather and Climate Modelling
 by **Antonello Pasini** *(CNR-Institute of Atmospheric Pollution, Rome, Italy)*

From Observations to Simulations leads us on a fascinating journey through the methods used for the scientific analysis of complex systems such as the atmosphere and the Earth system: from meteorology and climatology, as observational sciences, to the development of models and the use of computers as virtual laboratories. In plain, accessible language, avoiding technicalities, but highlighting the conceptually meaningful aspects, the book describes this “Copernican revolution” in meteorology and climatology, a change in methodological paradigm that rigorously tests the definition of some classical concepts, such as “causality” and “prediction.” This is the first book that guides the general public (and sets the specialists thinking) through research on complex systems which is contributing to a change in our outlook on nature.



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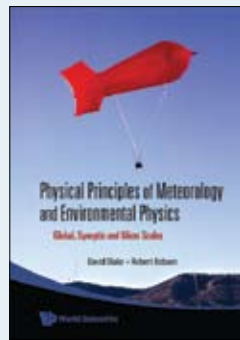
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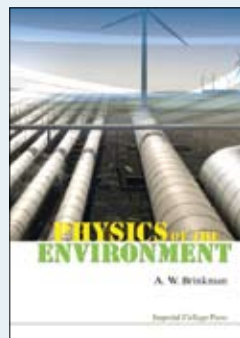
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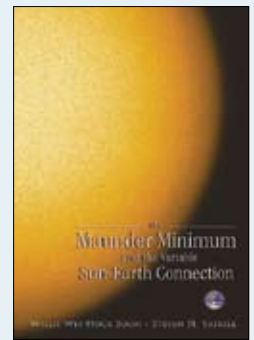
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by **Willie Wei-Hock Soon** (*Harvard-Smithsonian Center for Astrophysics, USA*) & **Steven H Yaskell**

With ongoing concern over global warming, and the continuing failure to identify root causes driving earth's climatic changes, the Maunder's story outlines how our cyclical sun can alter climate. The book goes on to view the sun-earth connection in terms of geomagnetic variation and climatic change; contemporary views on the sun's operating mechanisms are explored, and the effects these have on the earth over long and short time scales are pondered.

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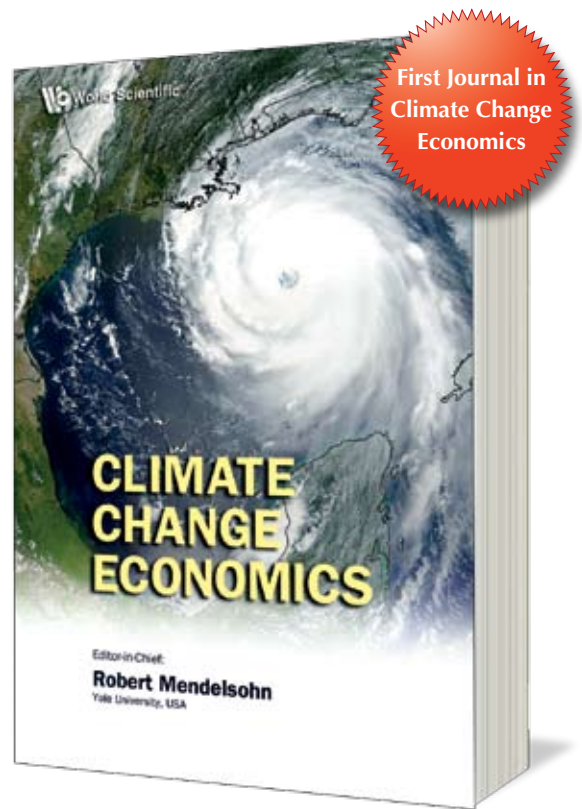
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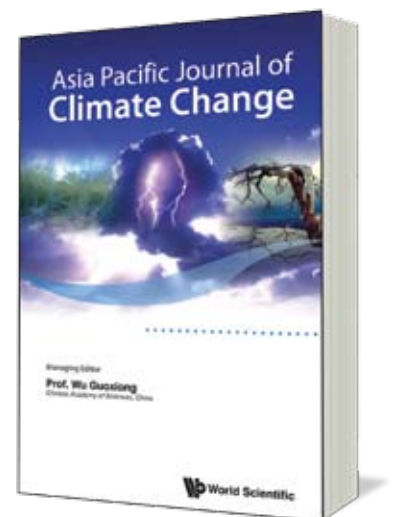
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