



Update on Book Project

Leo Donner
GFDL/NOAA, Princeton University

CMMAP, 11-13 January 2011, Berkeley, CA





Book Status

- In stock in Cambridge, UK, warehouse
- Due in US in 3 to 5 weeks
- Available for sale on CUP web-site
- Price around \$75-\$80
- “Hot” Item? Proof copy stolen from CUP booth at AGU in San Francisco!

THE DEVELOPMENT OF

Atmospheric General Circulation Models

Over the last 50 years, models that predict the state of the atmosphere have evolved from conceptual frameworks to advanced computational tools for short- and medium-range weather prediction and climate simulation. This book presents a comprehensive discussion of general circulation models of the atmosphere – covering their historical and contemporary development, their societal context, and current efforts to integrate these models into wider earth-system models. Leading researchers provide unique perspectives on the scientific breakthroughs, overarching themes, critical applications, and future prospects for atmospheric general circulation models. Key interdisciplinary links to other subject areas such as chemistry, oceanography, and ecology are also highlighted.

This book is a core reference for academic researchers and professionals involved in atmospheric physics, meteorology, and climate science, and can be used as a resource for graduate-level courses in climate modelling and numerical weather prediction. Given the critical role that atmospheric general circulation models are playing in the intense public discourse on climate change, it is also a valuable resource for policy makers and all those concerned with the scientific basis for the ongoing public-policy debate.

Cover illustration: this illustration shows how general circulation models decompose the atmosphere into discrete volumes, which in turn include parameterizations of smaller-scale processes, like clouds, which interact with the larger-scale processes. Such models are powerful tools for simulating climate and predicting weather. Image developed by Dr. Lisa Gardiner at the UCAR Office of Education and Outreach for the Center for Multi-Scale Modeling of Atmospheric Processes (CMMAP), a National Science Foundation Science and Technology Center.

CAMBRIDGE
UNIVERSITY PRESS
www.cambridge.org

ISBN 978-0-521-19006-0



9 780521 190060 >

Cover designed by Hart McLeod Ltd

Donner, Schubert
and Somerville

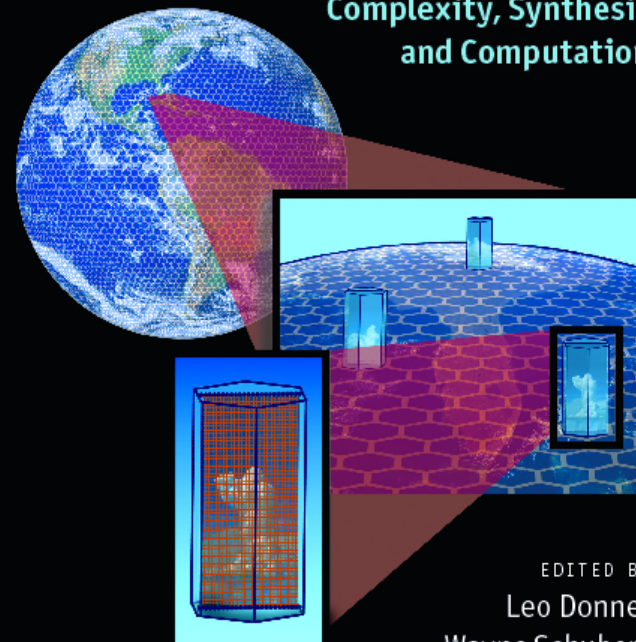
THE DEVELOPMENT OF

Atmospheric General Circulation Models

CAMBRIDGE

THE DEVELOPMENT OF Atmospheric General Circulation Models

Complexity, Synthesis
and Computation



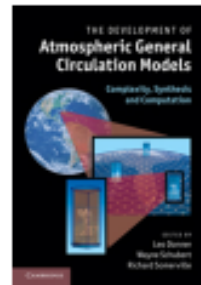
EDITED BY
Leo Donner
Wayne Schubert
Richard Somerville

CAMBRIDGE

CAMBRIDGE
UNIVERSITY PRESS

Academic and Professional Books
The future of publishing since 1584

View Inside



The Development of Atmospheric General Circulation Models

Complexity, Synthesis and Computation

Edited by: Leo Donner, Princeton University, New Jersey

Edited by: Wayne Schubert, Colorado State University

Edited by: Richard Somerville, University of California, San Diego

[View All Contributors](#)

Hardback

ISBN: 9780 521190060

Publication date: December 2010

272 pages

25 b/w illus. 20 colour illus. 2 tables

Dimensions: 247 x 174 mm

Weight: 0.72 kg

In stock

£50.00

Presenting a comprehensive discussion of general circulation models of the atmosphere, this book covers their historical and contemporary development, their model context, and current efforts to integrate these models into wider earth-system models. Leading researchers provide unique perspectives on the scientific breakthroughs, overarching themes, critical applications, and future prospects for atmospheric general circulation models. Key interdisciplinary links to other subject areas such as chemistry, oceanography and ecology are also highlighted. This book is a core reference for academic researchers and professionals involved in atmospheric physics, meteorology and climate science, and can be used as a resource for graduate-level courses in climate modeling and numerical weather prediction. Given the critical role that atmospheric general circulation models are playing in the intense public discourse on climate change, it is also a valuable resource for policy makers and all those concerned with the scientific basis for the ongoing public-policy debate.

Features

- Contributions have been selected and compiled to fill a critical information gap regarding modeling tools at the center of the climate change debate
- Provides a critical perspective on how these models have emerged and their scientific basis
- Takes a cross-disciplinary view, enabling readers to understand how atmospheric models also relate to models of the oceans, land surface and vegetation