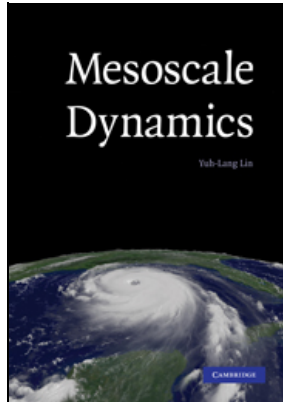




CAMBRIDGE
UNIVERSITY PRESS

Academic and Professional Books

The future of publishing – since 1584



Mesoscale Dynamics

Yuh-Lang Lin, North Carolina State University

Resources Available

Paperback

ISBN:9780521004848

Publication date:September 2010

646pages

Dimensions: 244 x 170 mm

Weight: 1.01kg

Available

£48.00

Mesoscale weather systems are responsible for numerous natural disasters, such as damaging winds, blizzards and flash flooding. A fundamental understanding of the underlying dynamics involved in these weather systems is essential in forecasting their occurrence. This 2007 book provides a systematic approach to this subject. The opening chapters introduce the basic equations governing mesoscale weather systems and their approximations. The subsequent chapters cover four major areas of mesoscale dynamics: wave dynamics, moist convection, front dynamics and mesoscale modelling. This is an ideal book on the subject for researchers in meteorology and atmospheric science. With over 100 problems, and password-protected solutions available to instructors at www.cambridge.org/9780521808750, this book could also serve as a textbook for graduate students. Modelling projects, providing hands-on practice for building simple models of stratified fluid flow from a one-dimensional advection equation, are also described.

Features

- A wide range of weather phenomena is described making this a great all-in-one guide to mesoscale dynamics
- Modelling projects are included to allow reader to get hands on experience in developing simple models
- Each chapter ends with review questions; featured problems with solutions allow for the book to be used on select courses for graduates