1. Record Nr. UNINA9910682549303321

Autore Shou Shaowen

Titolo An Introduction to Mesoscale Meteorology / / by Shaowen Shou,

Shenshen Li, Yixuan Shou, Xiuping Yao

Pubbl/distr/stampa Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2023

ISBN 981-19-8606-1

Edizione [1st ed. 2023.]

Descrizione fisica 1 online resource (341 pages)

Disciplina 551.5

Soggetti Atmospheric science

Climatology

Atmospheric Science Climate Sciences

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Nota di bibliografia Includes bibliographical references.

Nota di contenuto Features and equation set of mesoscale atmospheric motions --

Topographically forced mesoscale circulations -- Gravity waves in free atmosphere -- Front and jet stream -- Mesoscale convective systems -- Atmospheric instability -- Factors effecting the development of MCSs -- Mesoscale weather diagnosis analysis -- Mesoscale weather

forecasting. .

Sommario/riassunto This book provides a comprehensive introduction of mesoscale

meteorology which is one of the important branches of meteorology, studying majorly mesoscale atmospheric systems. It focuses on introduction of the basic knowledge about mesoscale meteorology. It contains the features and equation set of mesoscale atmospheric motions, the topographically forced mesoscale circulations, the gravity waves in free atmosphere, the front and jet stream, the mesoscale convective systems (MCSs), the atmospheric instability, the factors effecting the development of MCSs, mesoscale weather diagnosis and forecasting. This book provides many figures and basic formulas to help reader understanding the basic knowledge. What is mesoscale weather system? How the mesoscale systems influence severe disaster weather? How to forecast the mesoscale severe disaster weather? You will find the answers in it. This book will be of interest to both graduate

students majoring in meteorology and the meteorological researchers.