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Descrizione fisica 1 online resource (xlii, 252 pages): illustrations

551.517 Disciplina

Soggetti Atmospheric circulation

Atmospheric waves

Hydrology

Dynamic meteorology Water vapor, Atmospheric

Geophysics and Environmental Physics

Atmospheric Sciences

Hydrology/Water Resources

Climate Change/Climate Change Impacts

Climate Change Meteorology

Lingua di pubblicazione Inglese

**Formato** Materiale a stampa

Livello bibliografico Monografia

Nota di bibliografia Includes bibliographical references and index.

Chapter1: Introduction -- Chapter2: Structure, Process and Mechanism Nota di contenuto

> -- Chapter3: Observing and Detecting ARs -- Chapter4: Global and Regional Perspectives -- Chapter5: Effects of Atmospheric Rivers --Chapter6: AR Modeling: Forecasts, Climate Simulations, and Climate Projections -- Chapter7: Applications -- Chapter8: The Future of AR

Research and Applications.

Sommario/riassunto This book is the standard reference based on roughly 20 years of

> research on atmospheric rivers, emphasizing progress made on key research and applications questions and remaining knowledge gaps. The book presents the history of atmospheric-rivers research, the current state of scientific knowledge, tools, and policy-relevant

(science-informed) problems that lend themselves to real-world

application of the research—and how the topic fits into larger national and global contexts. This book is written by a global team of authors who have conducted and published the majority of critical research on atmospheric rivers over the past years. The book is intended to benefit practitioners in the fields of meteorology, hydrology and related disciplines, including students as well as senior researchers.