Radar Hydrology
Principles, Models, and Applications

Authors/Affiliations

Yang Hong, University of Oklahoma, Norman, USA
Jonathan J. Gourley, National Severe Storms Laboratory, Norman, Oklahoma, USA

This comprehensive reference is dedicated to radar hydrology. After a brief introduction to radar, the book moves into advanced radar principles and applications. Particular attention is given to the processing of radar data to arrive at accurate estimates of rainfall. The book then introduces advanced radar sensing principles. It covers each component of the hydrologic cycle in detail and discusses state-of-the-art hydrologic models. The book also introduces contemporary approaches in data assimilation and concludes with methods, case studies, and prediction systems design.

Key Features

- Builds from basic principles to advanced radar technologies and applications
- Examines the hydrologic cycle in detail
- Discusses state-of-the-art hydrologic models, including inputs, parameters, calibration strategies, variables, and outputs
- Covers methods such as depth-duration curves and flash flood guidance
- Contains case studies
- Guides readers to understand real prediction systems and be able to design their own systems
- Includes downloadable MATLAB® code

Selected Contents


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