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Autore	Li Xiaofan
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Convective-Stratiform Rainfall -- Budget-Derived Rainfall Separation Schemes -- Effects of Doubled Carbon Dioxide on Rainfall -- Modeling of Wegener- Bergeron-Findeisen Process -- Precipitation Predictability -- Phase Relation between Precipitation and Its Sources -- Effects of Vertical Wind Shear on Diurnal Variation of Rainfall -- Precipitation Efficiency and its relationship to Physical Factors -- Dependence of Precipitation Efficiency on Rainfall Type.
Sommario/riassunto	This is an updated and revised second edition of the book presenting new developments in the field of cloud-resolving modeling. The first edition of the book introduces the framework of cloud-resolving model, methodologies for analysis of modeling outputs, and validation of simulations with observations. It details important scientific findings in the aspects of surface rainfall processes, precipitation efficiency, dynamic and thermodynamic processes associated with tropical convection, diurnal variations, radiative and cloud microphysical processes associated with development of cloud clusters, air-sea coupling on convective scales, climate equilibrium states, and remote sensing applications. In additional to the content from the first edition of the book, the second edition of the book contains the new scientific results in the development of convective-stratiform rainfall separation scheme, the analysis of structures of precipitation systems, the thermal

effects of doubled carbon dioxide on rainfall, precipitation predictability, and modeling depositional growth of ice crystal. The book will be beneficial both to graduate students and to researchers who do cloud, mesoscale and global modeling.