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| Descrizione fisica | 1 online resource (497 pages) |
| Collana | Springer Atmospheric Sciences, , 2194-5217 |
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| Soggetti | Atmospheric sciences Meteorology Physical measurements Measurement Physical geography Atmospheric Sciences Measurement Science and Instrumentation Earth System Sciences |
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| Nota di contenuto | Chapter1: Polarization, scattering, and propagation of electromagnetic waves -- Chapter2: Polarimetric Doppler radar -- Chapter3: Scattering by an ensemble hydrometeors - Polarimetric perspective. Chapter4: Microphysical and dielectric properties of hydrometeors -- Chapter5: Polarimetric variables -- Chapter6: Data quality and measurement errors -- Chapter7: Polarimetric "fingerprints" of microphysical processes in clouds and precipitation -- Chapter8: Polarimetric characteristics of deep convective storms -- Chapter9: Polarimetric Classification of radar echo -- Chapter10: Polarimetric measurements of precipitation -- Chapter11: Polarimetric microphysical retrievals. |
| Sommario/riassunto | This monograph offers a wide array of contemporary information on weather radar polarimetry and its applications. The book tightly connects the microphysical processes responsible for the development and evolution of the clouds' bulk physical properties to the polarimetric variables, and contains the procedures on how to simulate realistic |

polarimetric variables. With up-to-date polarimetric methodologies and applications, the book will appeal to practicing radar meteorologists, hydrologists, microphysicists, and modelers who are interested in the bulk properties of hydrometeors and quantification of these with the goals to improve precipitation measurements, understanding of precipitation processes, or model forecasts.
