1. Record Nr. UNINA9910566471103321 Autore Carlino Elvio Titolo Advances in Transmission Electron Microscopy for the Study of Soft and Hard Matter Pubbl/distr/stampa Basel, : MDPI - Multidisciplinary Digital Publishing Institute, 2022 Descrizione fisica 1 online resource (134 p.) History of engineering and technology Soggetti Materials science Technology: general issues Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia This book provides readers with some examples of advanced Sommario/riassunto applications of electron microscopy on organic and inorganic specimens, highlighting out how new original approaches could provide a deeper understanding of the properties of matter and how a transmission electron microscope is not only a microscope but also a flexible tool for tailoring experiments, properly suited, to the issue of

interest.

Record Nr. UNINA9910337918803321 Autore Ryzhkov Alexander V Titolo Radar Polarimetry for Weather Observations / / by Alexander V. Ryzhkov, Dusan S. Zrnic Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 **ISBN** 3-030-05093-9 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (497 pages) Collana Springer Atmospheric Sciences, , 2194-5217 Disciplina 551.6353 Soggetti Atmospheric science Meteorology Physical measurements Measurement Physical geography **Atmospheric Sciences** Measurement Science and Instrumentation Earth System Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia 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 -- Chapter 10: 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.