1. Record Nr. UNINA9910557704903321 Autore Michaelides Silas Titolo Remote Sensing of Precipitation: Part II Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021 1 electronic resource (594 p.) Descrizione fisica Soggetti Research & information: general Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Precipitation is a well-recognized pillar in the global water and energy balances. The accurate and timely understanding of its characteristics at the global, regional and local scales is indispensable for a clearer insight on the mechanisms underlying the Earth's atmosphere-ocean complex system. Precipitation is one of the elements that is documented to be greatly affected by climate change. In its various forms, precipitation comprises the primary source of freshwater, which is vital for the sustainability of almost all human activities. Its socioeconomic significance is fundamental in managing this natural resource effectively, in applications ranging from irrigation to industrial and household usage. Remote sensing of precipitation is pursued through a broad spectrum of continuously enriched and upgraded instrumentation, embracing sensors which can be ground-based (e.g., weather radars), satellite-borne (e.g., passive or active space-borne sensors), underwater (e.g., hydrophones), aerial, or ship-borne. This

volume hosts original research contributions on several aspects of remote sensing of precipitation, including applications which embrace the use of remote sensing in tackling issues such as precipitation estimation, seasonal characteristics of precipitation and frequency analysis, assessment of satellite precipitation products, storm

prediction, rain microphysics and microstructure, and the comparison of satellite and numerical weather prediction precipitation products.