Record Nr. UNINA9910392725203321 Autore Ilev Stoje Dimov **Titolo** Global Satellite Meteorological Observation (GSMO) Theory: Volume 1 / / by Stoje Dimov Ilev Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-319-67119-7 Edizione [1st ed. 2018.] 1 online resource (XXVI, 546 p. 220 illus., 148 illus. in color.) Descrizione fisica 621.382 Disciplina Soggetti Signal processing Image processing Speech processing systems Electrical engineering Meteorology Observations, Astronomical Astronomy—Observations Atmospheric sciences Computer communication systems Signal, Image and Speech Processing Communications Engineering, Networks Astronomy, Observations and Techniques Atmospheric Sciences Computer Communication Networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction -- Space Segment -- Baseband and Transmission Systems -- Atmospheric Electromagnetic Radiation -- Satellite Meteorological Parameters -- Satellite Meteorological Instruments -- Antenna Systems and Propagation. Conclusion.

This book presents the principal structure of space systems,

functionality, media and applications for modern remote sensing, transmission systems, meteorological antennas, propagation

meteorological observation and transferring weather data from satellite

Sommario/riassunto

to the ground infrastructures and users. The book starts with a short background to the development of Radio and Space systems including overview, concepts and applications of satellite communications in function of transfer meteorological observation data and images. It goes on to discuss the fundamental principles of the space platforms and orbital parameters, lows of satellite motions, new types of launching systems, satellite orbits and geometric relations, spacecraft configuration, payload structure, type of onboard antenna systems, satellite orbits and components of satellite bus. The author also provides comprehensive coverage of baseband and transmission systems, fundamentals of atmospheric electromagnetic radiation, satellite meteorological parameters and instruments, and research and applications in antenna systems and propagation. This is a companion book of Global Satellite Meteorological Observation Applications (Springer).