1. Record Nr. UNINA9910350308203321 Proceedings of the Tiangong-2 Remote Sensing Application Conference Titolo [[electronic resource]]: Technology, Method and Application / / edited by Yidong Gu, Ming Gao, Guangheng Zhao Singapore:,: Springer Singapore:,: Imprint: Springer,, 2019 Pubbl/distr/stampa 981-13-3501-X **ISBN** Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (356 pages) Lecture Notes in Electrical Engineering, , 1876-1100 ; ; 541 Collana Disciplina 621.3678 Soggetti Microwaves Electronics Data mining Microwaves, RF and Optical Engineering Signal, Image and Speech Processing Remote Sensing/Photogrammetry Electronics and Microelectronics, Instrumentation Optics, Lasers, Photonics, Optical Devices Data Mining and Knowledge Discovery Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto This book gathers a selection of peer-reviewed papers presented at the Tiangong-2 Data Utilization Conference, which was held in Beijing, China, in December 2018. As the first space laboratory in China, Tiangong-2 carries 3 new types of remote sensing payloads – the Wide-band Imaging Spectrometer (WIS), Three-dimensional Imaging Microwave Altimeter (TIMA), and Multi-band Ultraviolet Edge Imaging Spectrometer (MUEIS) – for observing the Earth. The spectrum of the

WIS covers 18 bands, from visible to thermal infrared, with a swath of 300km. The TIMA is the first-ever system to use interferometric imaging radar altimeter (InIRA) technology to measure sea surface height and land topography at near-nadir angles with a wide swath. In turn, the MUEIS is the world's first large-field atmospheric detector

capable of quasi-synchronously detecting the characteristics of ultraviolet limb radiation in the middle atmosphere. The Earth observation data obtained by Tiangong-2 has attracted many research groups and been applied in such diverse areas as land resources, water resources, climate change, environmental monitoring, agriculture, forestry, ecology, oceanography, meteorology and so on. The main subjects considered in this proceedings volume include: payload design, data processing, data service and application. It also provides a comprehensive introduction to the research results gleaned by engineers, researchers and scientists throughout the lifecycle of the Tiangong-2 Earth observation data, which will improve the payload development and enhance remote sensing data applications.