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EARTH OBSERVATION SYMPOSIUM (B1)
International Cooperation in Earth Observation Missions (1)

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STATUS AND PERSPECTIVES OF THE INTERNATIONAL COOPERATION BASED ON THE ITALIAN EO SPACE ASSET COSMO-SKYMED

Abstract

COSMO-SkyMed (Constellation of Small satellites for Mediterranean basin Observation) is an Earth Observation space asset thanks which Italy plays a key role in the international context since the beginning of 2011, when the constellation became fully operational providing products and services for global environmental monitoring, scientific and commercial purposes and strategic applications. Starting from its early stage, COSMO-SkyMed has been conceived as a system very suitable for cooperation thanks to its design characteristics, that allowed Italian Space Agency (ASI) to activate important collaborations with governments and international agencies and to provide a fundamental support in a number of emergency situations. This paper provides a focus on the current, ongoing and under-definition cooperation in EO field based on the Italian radar infrastructure COSMO-SkyMed: ASI-CONAE (Argentina's Space Agency), ASI-JAXA (Japanese Space Agency), ASI-NASA (USA National Aeronautics and Space Administration), ASI-UKSA (UK Space Agency), ASI-CSA (Canadian Space Agency), ASI-ESA (European Space Agency) in the context of Dragon 4 Cooperation Programme dedicated to science and application development exploiting Chinese, Copernicus Sentinels, ESA and Third Party Missions EO data. In the framework of ASI-CONAE Cooperation, SIASGE Programme (Sistema Italo Argentino di Satelliti per la Gestione delle Emergenze - Italian/Argentinian Satellite System for Emergency Management), based on the 4 Italian X-Band COSMO-SkyMed satellites and 2 Argentinian L-Band SAOCOM satellites, is an proper example of a cooperative effort with developing and emerging countries. The paper provides also an overview of the contribution of COSMO-SkyMed mission in international coordinating initiatives and groups such as the CEOS (Committee on Earth Observing Satellites) and the PSTG (Polar Space Task Group), which operates under the auspices of the WMO (World Meteorological Organization). Taking into account the agreements, cooperation and initiatives above mentioned as well as the general results of the scientific data exploitation of the COSMO-SkyMed mission through the ASI's Open Call initiative, started in 2015, this work makes also available statistics and trend analysis based on the data exploitation from EO users community in terms of application domains, sensor modes and geographical areas of interest.