

IAF EARTH OBSERVATION SYMPOSIUM (B1)
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THE CSES CONSTELLATION :
NON IMAGING EARTH REMOTE SENSING
FOR NATURAL HAZARDS MITIGATION

Abstract

The ionospheric and magnetospheric layers surrounding the Earth are coupled with our planet's atmosphere and lithosphere as well as with the heliosphere and with signals coming from deep space. The CSES (China Seismo Electric Satellite) satellites, the first one launched in 2018 and the second one to be launched by the end of 2024, will form a constellation designed to explore these couplings in order to remote sensing phenomena ranging from geophysics, ionospheric and magnetospheric physics, solar physics and space weather, to astrophysics. In particular, timely detection of perturbations observed from space, could help mitigate damages induced by natural hazards. In this talk we will discuss the payloads which have been provided to the CSES-2 mission by the italian Limadou Collaboration: the High Energy Particle Detector (HEPD-2) and the Electric Field Detector (EFD-2), addressing the results obtained so far by the first CSES mission and the improvement expected by operating with a constellation of two satellites on the same orbit.