

R2O and O2R Space Weather activities developed by LAMP (Laboratorio Argentino de Meteorología del espacio)

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Abstract:

Severe space weather conditions are one of the natural hazards for the modern technological age, mainly due to their potential to disrupt telecommunications, affect positioning systems for navigation, produce failures in aircraft and satellite systems, increase uncertainties of timing services, damage electric power subsystems, etc. The Argentine space weather laboratory LAMP (in Spanish: Laboratorio Argentino de Meteorología del espacio) was created to develop different space weather activities, described in full detail in our previous publication (Lanabere et al., 2020). In particular, since 2016 LAMP has carried out research-to-operations (R2O) and operations-to-research (O2R) activities on all the steps of the full chain of Sun-Earth coupling. In particular, activities developed include R2O/O2R on cosmic rays, interplanetary coronal mass ejections, magnetic clouds, solar wind, stream interaction regions, etc (see Lanabere et al., 2021 for a brief description). Furthermore, since January 2020 LAMP is the Argentine regional warning center of the international consortium of space weather centers (ISES). In this work, we present the latest operative space weather products developed by LAMP that are offered publicly at spaceweather.at.fcen.uba.ar.

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