

OIASA oblique ionograms automatic scaling algorithm application to the ionograms recorded by Ebro observatory ionosonde

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The INGV oblique ionograms automatic scaling algorithm (OIASA), for the identification of trace of oblique ionograms, has been applied to ionograms from a campaign of oblique soundings between Dourbes (50.1°N, 4.6°E) and Roquetes (40.8°N, 0.5°E), in order to determine the maximum usable frequency (MUF) for the considered radio link, automatically rejecting poor quality ionograms. Oblique soundings from three different campaigns have been studied, covering different geomagnetic conditions. The reported results demonstrate that OIASA performance is not influenced by geomagnetic or ionospheric activity conditions. This demonstrates a satisfactory performance of the automatic scaling algorithm, even under different geomagnetic conditions. This suggests the potential application of OIASA as a near-real-time tool for ionospheric monitoring purposes, and its performance for tracking ionospheric effects caused by space weather events