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Real-Time Performance of PRESTo Earthquake Early Warning System at the Ibero-Maghrebian Region

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Recently, the first correlations for an Earthquake Early Warning System (EEWS) at the Ibero-Maghrebian region have been developed. In order to validate them, we have adapted the Earthquake Early Warning System software platform PRESTo to operate in real time at the Ibero-Maghrebian region. After the period of configuration, it became operative on October 2015, sending warnings to few private users. Here we show the performance of the system during the first 15 months that the EEWS has been operative. More than 400 earthquakes have been detected at the region during the period, for which we have analysed the time needed to issue the alert. We have also compared the first and final estimation of PRESTo with those of the Instituto Geográfico Nacional, for the hipocentral location, origin time and magnitude. A detailed study of the performance of PRESTo for the Alboran 01/25/2016 (Mw=6.3) earthquake, the largest occurred in the region in the last ten years, has been carried out. From the analysis of PRESTo during this period we conclude that an EEWS is feasible and very useful for the Ibero-Maghrebian region.