

# Contribution of the Auxiliary Seismic Station MLR in International Data Centre Products and Comparison of the International Data Centre Reviewed Seismic Bulletins with the Bulletins from the National Data Centre of Romania

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Romania's participation in the global system of verification of nuclear experiments by seismological means is carried out within the National Institute for Earth Physics by hosting the National Data Centre of Romania (ROM-NDC) and operating and maintaining the auxiliary seismic station Muntele Rosu (AS081, MLR) as part of International Monitoring System (IMS). The main purposes of this study are first, to compare the reviewed seismic bulletins (REBs) produced by ROM-NDC with the REBs produced by International National Data Centre (IDC) and second, to highlight the use of the MLR station in IDC products for local and regional earthquakes as well as in the ISC bulletins on a global scale. In order to achieve these goals, we are analysing seismic events with a magnitude ML above 3.5, that occurred in 2021 on Romania's territory and surrounding areas, by applying both statistical methods as well as processing and comparing the data recorded by the Romanian Seismic Network and the IMS network for these events using the Antelope and Geotool softwares. The comparison between IDC and ROM-NDC bulletins shows that an important percentage of such events are commonly missed in IDC REB solutions for the events with a magnitude ML above 3.5 (approx. 50%).

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## Promotional text

This study presents the results of an evaluation of the performance monitoring using Romanian NDC (ROM NDC) and IDC products, as well as Romanian Seismic Network (RSN) and IMS data, for local and regional earthquake activity during 2021.

## Oral preference format

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