

EGU23-4506, updated on 22 Feb 2024

<https://doi.org/10.5194/egusphere-egu23-4506>

EGU General Assembly 2023

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ORCA (Observatorio de Rayos Cósmicos Antártico), current status and future perspectives

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ORCA (2.37 GV) is a suit of two neutron monitors and a muon telescope. It was installed at Juan Carlos I Antarctic Base on January 2019 being in operation since. Because the low level of the solar activity, only a few of solar events have been detected. The GLE 73 and three Forbush decreases. A new ORCA like detector (ICaRO, 11.5 GV) is being installed at 2200 m a.s.l in Izaña Atmospheric Observatory (Tenerife Island, Spain). On the other hand, CaLMa neutron monitor (6.95 GV) will be updated with a muon telescope made by eight 1 m² scintillators arranged in two layers of four scintillators at some point during the next two years. These three detector will measure muons and neutrons from cosmic ray interaction with atmosphere at three different locations allowing to study the solar activity from a new perspective