



Contribution ID: 259

Type: Parallel Flash talk

Atmospheric electron and muon neutrinos energy spectrum with the ANTARES neutrino telescope

Tuesday, 23 February 2021 12:10 (5 minutes)

In this contribution a combined measurement of the energy spectra of atmospheric electron and muon neutrinos in the energy range between 100 GeV and 50 TeV with the ANTARES neutrino telescope is presented. The analysis uses 3012 days of detector livetime in the period 2007–2017, and selects 1016 neutrinos interacting in (or close to) the instrumented volume of the detector, yielding shower-like events and starting track events. The contamination of the atmospheric muon background in the final sample is suppressed at the level of a few per mill by different steps in the event selection, including a Boosted Decision Tree classifier. The distribution of reconstructed events is unfolded in terms of electron and muon neutrino fluxes. The derived energy spectra are compared with previous measurements.

Collaboration name

ANTARES

Primary author: VERSARI, Federico (INFN -CNAF)

Presenter: VERSARI, Federico (INFN -CNAF)

Session Classification: Multimessenger Investigations