



Contribution ID : 112

Type : **Oral talk**

## **Cosmic ray events with electromagnetic showers triggered in the NUCLEON experiment**

*Friday, 25 October 2024 17:33 (12)*

The NUCLEON satellite-based experiment is known for the discovery of the 10 TeV knee in the spectra of protons and other nuclei. This result was based on the analysis of events with hadronic showers triggered by the NUCLEON spectrometer using the KLEM method and the data from the microcalorimeter. However, the Scintillator superfast trigger caused the spectrometer to register also the events with electromagnetic showers. Among the latter there appeared to be relatively more those with the directions coming from the Earth surface than from the other ones. This excess might be caused by Earth emerging particles produced in the processes of neutrino conversion while their propagation through the Earth. With the assumption of such possibilities a rough estimate of the magnitude of neutrino flux can be made.

**Primary author(s)** : SLEPNYOV, Stanislav

**Co-author(s)** : GREBENIUK, Victor; TKACHEV, Leonid

**Presenter(s)** : SLEPNYOV, Stanislav

**Session Classification** : Astroparticle

**Track Classification** : Astroparticle physics