



Contribution ID : 291

Type : **Poster**

## **Portable muon telescope for measuring cosmic muon fluxes**

*Tuesday, 22 October 2024 17:05 (115)*

The monitoring of cosmic muons is an important and permanent task for low-background particle physics experiments at the surface and at shallow laboratory locations. Nevertheless, the monitoring itself at the current level of development of experimental physics techniques is rather a methodical task, so its automation seems to be necessary. This paper presents such a system for the registration of cosmic muons on the basis of plastic scintillators. The telescope is a compact portable system of three detectors, which allows to hold and change the zenith angle in automatic mode with the help of a built-in microcontroller, as well as to automate a series of measurements of the cosmic background. The results of laboratory measurements and measurements in the conditions of a nearby nuclear power reactor are presented.

**Primary author(s) :** Mrs. ZINATULINA, Danya (JINR); Mr. SHEVCHIK, Egor (JINR); Mr. ZHITNIKOV, Igor (JINR); Mrs. FOMINA, Maria (JINR); Mr. SHIRCHENKO, Mark (JINR); Mr. DOVBNENKO, Maxim (JINR); KAZARTSEV, Sergei (JINR); Mr. ROZOV, Sergey (JINR); Mr. BELOV, Viacheslav (JINR)

**Presenter(s) :** KAZARTSEV, Sergei (JINR)

**Session Classification :** Poster session

**Track Classification :** Facilities and advanced detector technologies