



Contribution ID : 273

Type : **Oral talk**

Relative calibration of the TUS photodetector in flight

Friday, 25 October 2024 12:15 (15)

The TUS experiment became the first detector to measure the fluorescent and Cherenkov radiation of extensive atmospheric showers (EAS) in the Earth's atmosphere from space orbit. The main purpose of this experiment was to search for and study ultrahigh-energy cosmic rays with energies $E > 70$ Eev. The TUS detector registered dozens of anomaly events, the origin of which is unclear. During the first orbits of the satellite, the high voltage regulation system of photoelectronic multiplier tube (PMT) did not work correctly, and because of this, ~ 20% of the PMTs are dead, and the remaining ones irreversibly changed their characteristics. The anomaly events give a possibility to do a relative calibration of the photodetector matrix. The preliminary results of the calibration will be presented.

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Session Classification : Facilities and advanced detector technologies

Track Classification : Facilities and advanced detector technologies