

Contribution ID: 946

Type: Poster

Analysis and interpretation of short intensity peaks in neutron monitor measurements

Neutron monitors are essential instruments for studying interplanetary conditions and space weather. Complementing to space-born detectors, they extend the observable energy range beyond 50 GeV. While groundlevel enhancements and Forbush decreases are well-documented, shorter temporal increases in neutron count rates remain under-explored. This work investigates potential causes of such short intensity increase like single peaks, originating from terrestrial effects (gamma-ray flashes, muon-bursts) to solar energetic events and high-energy cosmic rays. Additionally, we aim to distinguish between genuine physical phenomena and instrumental noise to avoid spurious data interpretation.

Collaboration(s)

Author: Dr SAPUNDJIEV, Danislav (Royal Meteorological Institute of Belgium)Presenter: Dr SAPUNDJIEV, Danislav (Royal Meteorological Institute of Belgium)Session Classification: PO-1

Track Classification: Solar & Heliospheric Physics