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Fine structure of multiplicity in neutron monitor and differences between small and large multiplicities

Balabin, Yury¹, Gvozdevsky, Boris¹ and Germanenko, Aleksei¹

¹Polar Geophysical Institute

We proceed to study events of multiplicity in neutron monitors (NM) at the stations Barentsburg, Apatity, Moscow and Baksan. These stations are equipped with an advanced data acquisition system which is able to register every NM pulse: which NM tube produced the pulse and how many microseconds elapsed since the previous pulse. The time resolution is as high as 1 microsecond. So we have the possibility to study a fine temporal and spatial structure of multiplicity events. The analysis shows that the structure changes with increasing multiplicity number M . At $M \lesssim 30$ -35 the origin of a multiplicity can be explained only by the local air shower. The intensity and size of such air showers were determined.