COSMIC RAY SNOW EFFECT IN DIFFERENT MULTIPLICITIES ACCORDING TO EMILIO SEGRE' OBSERVATORY NM HOURLY DATA

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On the basis of cosmic ray hourly data obtained by NM of Emilio Segre' Observatory

(hight 2025 m above s.l., cut-off rigidity for vertical direction 10.8 GV) we determine

the snow effect in CR for total neutron intensity and for multiplicities m?1, m?2, m?3,

m?4, m?5, m?6, m?7, and m?8, as well as for m=1, m=2, m=3, m=4, m=5, m=6, and

m=7. For comparison and excluding primary CR variations we use also hourly data on

neutron multiplicities obtained by NM of University "Roma Tre" (about sea level, cut-

off rigidity 6.7 GV) and hourly data of total intensity of NM of the University of Athens

(about sea level, cut-off rigidity 8.7 GV). In this paper we will analize effects of snow in

periods from 4 January 2000 to 15 April 2000 (with maximal absorption effect about

5%) and from 21 December 2000 up to 31 March 2001 with maximal effect 13% in the

total neutron intensity. We use the periods without snow to determine regeression coefficients between primary CR variations observed by NM of Emilio Segre'

Observatory, by Rome NM and Athens NM. On the basis of obtained results we develop a method to correct data on snow effect by using several NM hourly data. On

the basis of our data we estimate the accuracy with what can be made correction of NM

data of stations where the snow effect can be important.