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Cosmic ray measurements at Lomnický štít: effect of barometric pressure.

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Since December 1981 a neutron monitor (NM) with 8 tubes is in operation at Lomnický štít (LS), 2634 m asl. Starting in March 2014 a muon detector of type SEVAN is providing continual data too. Barometric corrections for both types of measurements in various time intervals and for different pressure ranges are examined. Comparison of beta to those reported in other papers is done. For determination of pressure coefficient of NM (beta in %/mbar) mainly the data from Jungfraujoch NM as a reference station are used. Long term behaviour and possible dependence of beta on pressure itself is checked until 2015. Values of beta for muon detector are compared with those reported from Nor Amberd SEVAN. We discuss some problems regarding utilization the data from CR measurements at high mountain site of LS for the physical analysis, especially due to local weather conditions. Selected quasi-periodicities observed in cosmic ray records and in barometric pressure time series are examined.

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