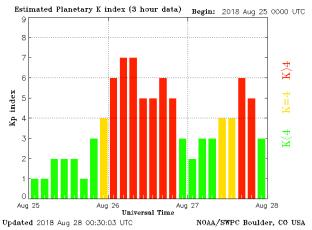


## **Newsletter Cosmic Rays / August 2018**

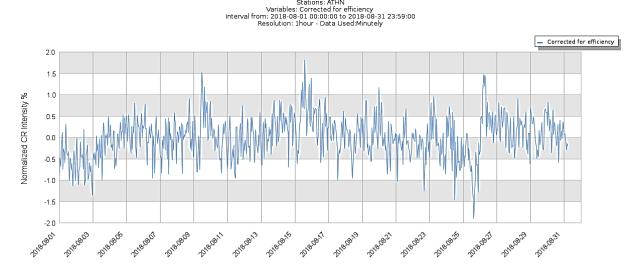
August 2018 has been a very quiet month in the sense of solar activity. A number of only 4 CMEs has been spotted (source http://sidc.oma.be/cactus/catalog.php) with angular width  $w < 90^{\circ}$ . These CMEs together with the high-speed streams of solar wind for this month resulted to a distinct modulation of the galactic cosmic rays. August was also a very quiet month in the sense of proton flux levels of solar flares (SFs). No solar flare with magnitude > C1.0 was recorded during this period.

Although August was a more active month in the sense of geomagnetic activity. The interaction of a high-speed solar wind stream from coronal holes on August 25-27 triggered a strong geomagnetic storm of G3 level (Fig. 1). Active conditions noticed also on August 11, 15, 17 and 20 as a result of the interaction of a high-speed solar wind streams from coronal holes.



**Figure 1:** The Kp index values during the strong G3 geomagnetic storm of August 25-27. (from ftp://ftp.swpc.noaa.gov/pub/warehouse/2018/2018\_plots/kp/)

The results of these events during this month were spotted on the cosmic ray intensity as Forbush effects, recorded at Athens Neutron Monitor Station (cut-off rigidity 8.53 GV) with amplitudes varied from 1% up to almost 3.5% (Fig. 2).



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Figure 2: Hourly corrected for pressure and efficiency values of the cosmic ray intensity recorded by Athens Neutron

Monitor Station from 01-31/08/2018 (From the multi station data service of Athens NM Station)