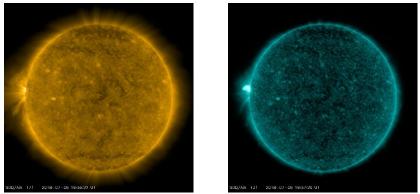


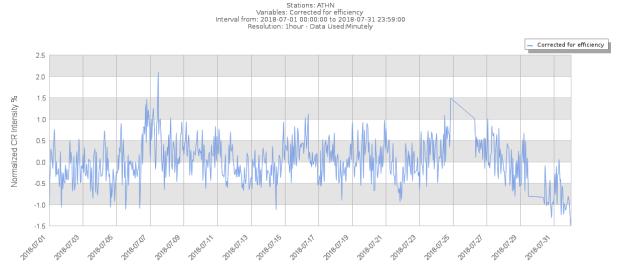
## Newsletter Cosmic Rays / July 2018

July 2018 has been a very quiet month in the sense of solar and geomagnetic activity. A number of only 3 CMEs has been spotted (source http://sidc.oma.be/cactus/catalog.php) with angular width w < 90°. These CMEs together with the high-speed streams of solar wind for this month resulted to a distinct modulation of the galactic cosmic rays. July was also a very quiet month in the sense of proton flux levels of solar flares (SFs) in contrary to June. Only one solar flare with magnitude > C1.0, was recorded during this period. The most energetic solar flare was a C1.6 noticed on 06/07/2018, 20:07UT peak time (Fig. 1).



**Figure 1:** The C1.6 solar flare of 06/07/2018 at 20:07 UT peak time (from https://sdo.gsfc.nasa.gov/data/aiahmi/ and https://www.solarmonitor.org)

The interaction of a high-speed solar wind stream from coronal holes on July 5 triggered a minor geomagnetic storm of G1 level. Active conditions noticed also on July 21 and 24 as a result of the interaction of a high-speed solar wind streams from coronal holes. 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 2% (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 01-31/07/2018 (From the multi station data service of Athens NM Station)

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