

November 2015 has been a less active month in the sense of solar activity. A number of 95 CMEs have been spotted, with 4 CMEs with angular width $90^\circ < da < 180^\circ$ and 2 CMEs with $180^\circ < da < 270^\circ$ resulting into distinct modulation of the galactic cosmic rays (source: <http://sidc.oma.be/cactus/catalog.php>). November was also a less active month in the production rate of solar flares (SFs). A number of 97 solar flares were spotted with 93 C- and 4 M-class SFs, the most energetic one being a M3.9 on 09/11/2015 at 12:49UT (start time) from the AR 12449, S13E39 (Fig. 1).

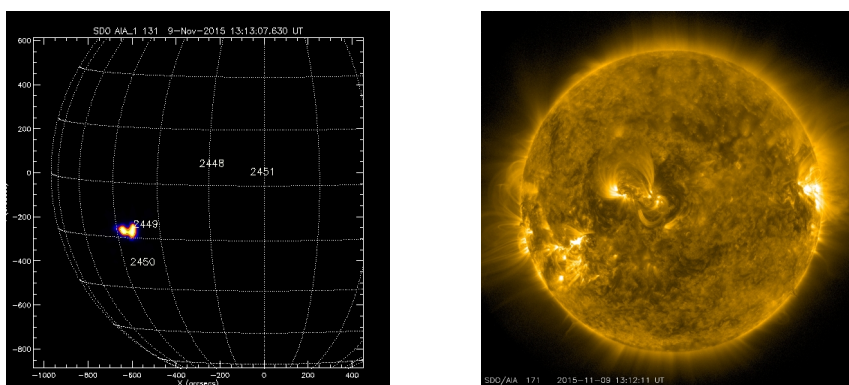


Figure 1: The M3.9 solar flare of 09/11/2015 at 13:12 peak time (from <http://www.lmsal.com/solarsoft> and <http://sdo.gsfc.nasa.gov/data/aiahmi/>)

The arrival of a CME on November 6 triggered a G1 geomagnetic storm and in the first hours of November 7 the geomagnetic storm rises up to G2 level. The interaction of a high speed stream of solar wind with Earth's magnetosphere on November 3-4 and November 10 had as a result a G1 and G2 geomagnetic storms respectively. The results of these events were spotted on the cosmic ray intensity as a series of Forbush decreases. The first one started on November 3-4, the second one on November 6 and the third one on November 10 recorded at Athens Neutron Monitor (NM) Station with amplitude of 4%. The recovery phase was a typical 10-days period. Hourly values of the cosmic ray intensity from the Athens NM station (cut-off rigidity 8.53 GV) are illustrated in Fig. 2.

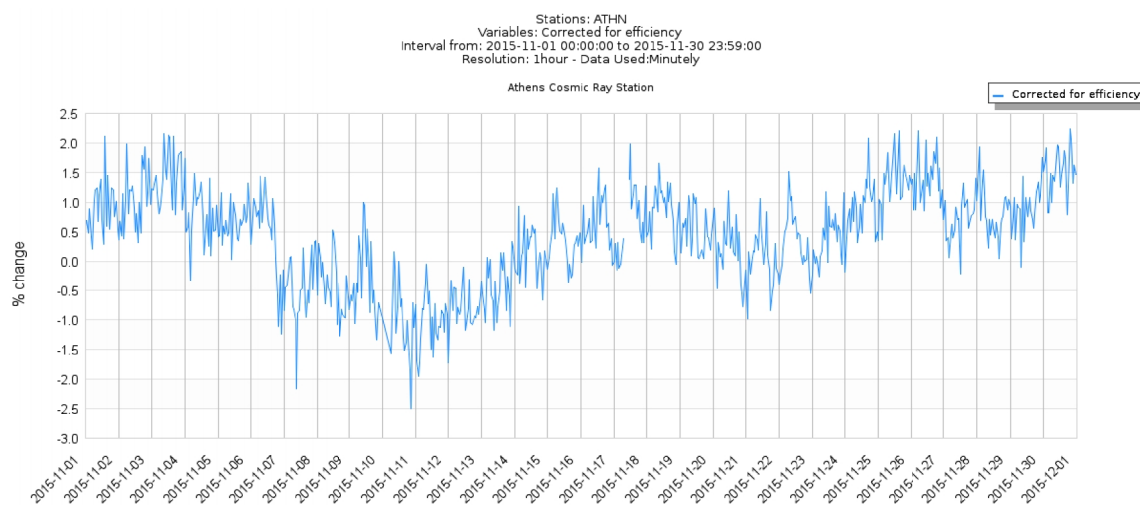


Figure 2: Corrected for pressure and efficiency hourly values of the Athens Neutron Monitor Station from 01-30/11/2015 (From multi station service of Athens NM Station).

Contact:

Prof. H. Mavromichalaki
 email: emavromi@phys.uoa.gr
<http://cosray.phys.uoa.gr>