



Contribution ID: 206

Type: **Poster contribution**

Dependence of 100 MeV solar proton events on the solar activities: flares and coronal mass ejections

Thursday, 30 July 2015 15:30 (1 hour)

To investigate the possible acceleration mechanism for high energy ($E > 100$ MeV) protons, the correlation coefficients (CCs) are calculated between the prompt component intensity (PCI) of $E > 100$ MeV solar proton events (SPEs) and the speed of coronal mass ejections (CMEs), and the soft X-ray (SXR) emission of solar flares. Data analysis shows that the CCs between the PCI of $E > 100$ MeV SPEs and the concurrent SXR emission are much higher than those between the PCI of $E > 100$ MeV SPEs and the speed of the concurrent CMEs. The results suggest that both the solar flares and the CMEs are important to the high energy SPEs, however, the concurrent solar flares appears to make more contribution to the high energy SPEs at the early phases of the SEP events.

Registration number following "ICRC2015-I/"

272

Primary author: Prof. LE, Guiming (National Satellite Meteorological Administration, CMA, China)

Co-author: Prof. TANG, Yuhua (School of Astronomy and Space Science, Nanjing University, Nanjing 210046, China)

Presenter: Prof. LE, Guiming (National Satellite Meteorological Administration, CMA, China)

Session Classification: Poster 1 SH

Track Classification: SH-EX