



Contribution ID: 111

Type: oral

Forbush Decreases during the deep minimum and mini-maximum of solar cycle 24

Monday, 5 September 2016 17:30 (15 minutes)

After a prolonged and deep solar minimum at the end of Solar Cycle 23, the current Cycle 24 is one of the lowest cycles. These two periods of deep minimum and mini-maximum are connected by a period of increasing solar activity. The Forbush decreases in cosmic ray intensity from January 2008 to December 2014 are studied. We perform a statistical analysis of 617 events using the IZMIRAN database of Forbush effects obtained by processing the data of the worldwide neutron monitor network using the global survey method. A further study of the events that happened on the Sun and the way that these affected the interplanetary space, and finally provoked the decreases of the galactic cosmic rays near Earth is performed. A statistical analysis of the amplitude of the cosmic ray decreases with solar and geomagnetic parameters is carried out. The results will be useful for space weather studies and especially for Forbush decreases forecasting.

Primary authors: Mrs LINGRI, Dimitra (University of Athens); Prof. MAVROMICHALAKI, Helen (University of Athens)

Co-authors: Prof. BELOV, Anatoly (Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation RAS, Moscow, Russia); Dr ABUNIN, Artem (IZMIRAN, Russia); Prof. EROSHENKO, Eugenia (Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation RAS, Moscow, Russia); Dr ABUNINA, Maria (IZMIRAN, Russia); Prof. YANKE, Victor (IZMIRAN, Russia)

Presenter: Mrs LINGRI, Dimitra (University of Athens)

Session Classification: Parallel