ICRC2015

ICRC
The Astroparticle Physics Conference
34th International Cosmic Ray Conference
July 30 - August 6, 2015
The Hague, The Netherlands

Contribution ID: **437** Type: **Poster contribution**

GCR intensity during the sunspot maximum phase and the inversion of the heliospheric magnetic field

Tuesday 4 August 2015 16:00 (1 hour)

Recently the maximum phase of the current solar cycle (SC) 24, in many relations anomalous when compared with solar cycles of the second half of the 20-th century, came to the end. The corresponding phase in the GCR intensity cycle is also in progress.

In this paper we study different aspects of the sunspot and GCR behavior around this phase. First, the amplitudes of the SC 24 in the solar activity and GCR intensity are considered with respect to the previous sunspot cycles. Beside the different well-known prediction techniques, the values for maximum phase are estimated from the correlation between characteristics in the maximum and in the inflection points (few years before maximum) for the previous solar cycles. Second, the GCR-effects specific for the maximum phase - Gnevyshev Gap effect, quasi-biennial oscillations and the energy hysteresis –are studied and correlated with QBO in the strength of the heliospheric magnetic field (HMF) and with the inversion of the HMF polarity.

Collaboration

– not specified –

Registration number following "ICRC2015-I/"

215

Author: KRAINEV, Mikhail (Lebedev Physical Institute, Moscow, Russia)

Co-authors: Dr SVIRZHEVSKAYA, Albina (Lebedev Physical Institute RAS, Moscow, Russia); Prof. BAZILEVSKAYA, Galina (Lebedev Physical Institute RAS, Moscow, Russia); Dr KALININ, Mikhail (Lebedev Physical Institute RAS, Moscow, Russia); Dr SVIRZHEVSKY, Nikolai (Lebedev Physical Institute RAS, Moscow, Russia)

Presenter: KRAINEV, Mikhail (Lebedev Physical Institute, Moscow, Russia)

Session Classification: Poster 3 SH

Track Classification: SH-EX