Contribution ID: **445** Type: **Talk**

New insights from cross-correlation studies between Solar activity and Cosmic-ray fluxes

Friday 16 July 2021 19:18 (12 minutes)

The observed variablity of the cosmic-ray intensity in the interplanetary space is driven by the evolution of the Sun's magnetic activity over its 11-year quasiperiodical cycle. Investigating the relationship between solar activity indices and cosmic-ray intensity measurements is then essential for understanding the fundamental processes of particle transport in the heliosphere. In this work, we present global characterization the solar modulation of cosmic rays over the solar activity cycle and for different energies of the cosmic particles. We present our cross-correlation studies using data from space experiments, neutron monitors and solar observatories collected over several solar cycles.

Keywords

Collaboration

other Collaboration

Subcategory

Theoretical Methods

Primary authors: TOMASSETTI, Nicola (University of Perugia & INFN); BERTUCCI, Bruna; FIANDRINI, Emanuele

Presenter: TOMASSETTI, Nicola (University of Perugia & INFN)

Session Classification: Discussion

Track Classification: Scientific Field: SH | Solar & Heliospheric