



Contribution ID: 18

Type: not specified

## Electron and positron fluxes in primary cosmic rays measured with the AMS-02 detector on the ISS

*Wednesday, 7 September 2022 15:00 (20 minutes)*

The Alpha Magnetic Spectrometer, AMS-02, is a magnetic spectrometer detector operating on the International Space Station (ISS) since May the 19th, 2011. The latest precision results on cosmic-ray electrons up to 1.4 TeV and positrons up to 1 TeV are providing new insights into the origin of high energy cosmic-ray electrons and positrons. In the entire energy range the electron and positron spectra have distinctly different magnitudes and energy dependences. The analysis of the time dependences of low energy electron and positron fluxes exhibits common short-term features and different long-term behaviour, proving evidence of charge-dependent effects in solar modulation of low energy cosmic-ray fluxes. In this contribution we describe the latest AMS-02 experimental results on the measurements of GeV and TeV cosmic-ray electrons and positrons .

### Summary

**Primary authors:** GRAZIANI, Maura (Istituto Nazionale di Fisica Nucleare); VAGELLI, Valerio (ASI & INFN-PG)

**Presenter:** DURANTI, Matteo (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Cosmic Rays - 1