Contribution ID: **259** Type: **oral**

Latest Results from the Alpha Magnetic Spectrometer on the International Space Station

Wednesday, 25 September 2024 09:50 (25 minutes)

The Alpha Magnetic Spectrometer (AMS) is a precision particle physics detector on the International Space Station. Over 12 years, AMS has collected more than 230 billion cosmic rays, from elementary particles to iron nuclei, at energies up to multi-TeV. The precision spectrometer measures elementary particles and nuclei with ~1% accuracy, yielding many surprising results. The high energy data on elementary particles (electrons, positrons, antiprotons, and protons) requires new sources of explanation. The data on nuclei and isotopes show characteristic energy dependence not predicted by any theory. The comprehensive AMS data requires a new model of the cosmos.

Presenter: WENG, Zhili (Massachusetts Institute of Technology)

Session Classification: III Plenary