

New Properties of primary and secondary cosmic rays measured by AMS

Tuesday, July 28, 2020 6:05 PM (25 minutes)

We present precision high statistics measurements of primary cosmic rays protons, Helium, Carbon and Oxygen and the secondary cosmic rays Lithium, Beryllium and Boron measured by Alpha Magnetic Spectrometer on ISS in the rigidity range from 2 GV to 3 TV.

These measurements are based on more than one billion nuclei collected by AMS during first 7 years of operation from May 2011 to May 2018. The unexpected properties of these cosmic rays as well as high statistics secondary-to-primary flux ratios such as Li/C, Be/C, B/C, Li/O, Be/O and B/O will be discussed.

Secondary track (number)

Primary authors: Dr CHOUTKO, Vitaly (Massachusetts Inst. of Technology (US)); JIA, Yi (Massachusetts Inst. of Technology (US)); YAN, Qi (Massachusetts Inst. of Technology (US)); OLIVA, Alberto (Universita e INFN, Bologna (IT)); DEROME, Laurent Yves Marie (LPSC Laboratoire de Physique Subatomique et de Cosmologie (LPSC)); Dr PANICCIA, Mercedes (Universite de Geneve (CH)); FORMATO, Valerio (Universita e INFN, Perugia (IT)); Mr PHAN, Duc (Stefan Meyer Institut); BERDUGO PEREZ, Javier (Centro de Investigaciones Energéticas Medioambientales y Tecnológicas)

Presenter: Dr PANICCIA, Mercedes (Universite de Geneve (CH))

Session Classification: Astro-particle Physics and Cosmology

Track Classification: 08. Astro-particle Physics and Cosmology