Contribution ID : **338** Type : **Plenary/section talk**

Measurements of secondary origin nuclei and isotopes in cosmic rays with AMS02

Friday, 26 October 2018 10:25 (20)

Nuclei and isotopes of secondary origin are important tools to understand and model the propagation of cosmic rays (CR) through the Galaxy. We report on the observation of new properties of secondary cosmic rays Li, Be, and B measured in the rigidity (momentum per unit charge) range 1.9 GV to 3.3 TV with a total of 5.4 million nuclei collected by AMS during the first five years of operation aboard the International Space Station. All the three fluxes have an identical rigidity dependence above 30 GV and deviate from a single power law above 200 GV in an identical way. This behavior of secondary cosmic rays has also been observed in the AMS measurement of primary cosmic rays He, C, and O but the rigidity dependences of primary cosmic rays and of secondary cosmic rays are distinctly different. We also present the status of Z<=2 isotope measurements, also of secondary origin, able to further constrain CR propagation models. Such measurements are presented in dependence of kin. En/n and cover a still substantially uncharted energy range.

Primary author(s) : Dr. DIMICCOLI, Francesco (UNITN - Università degli studi di Trento)

Presenter(s) : Dr. DIMICCOLI, Francesco (UNITN - Università degli studi di Trento)

Session Classification : Particle Physics: Astroparticle physics

Track Classification : Particle physics: astroparticle physics