

Heavy Primary Cosmic Ray Fluxes

measurement from data collected
by AMS-02 on the
International Space Station



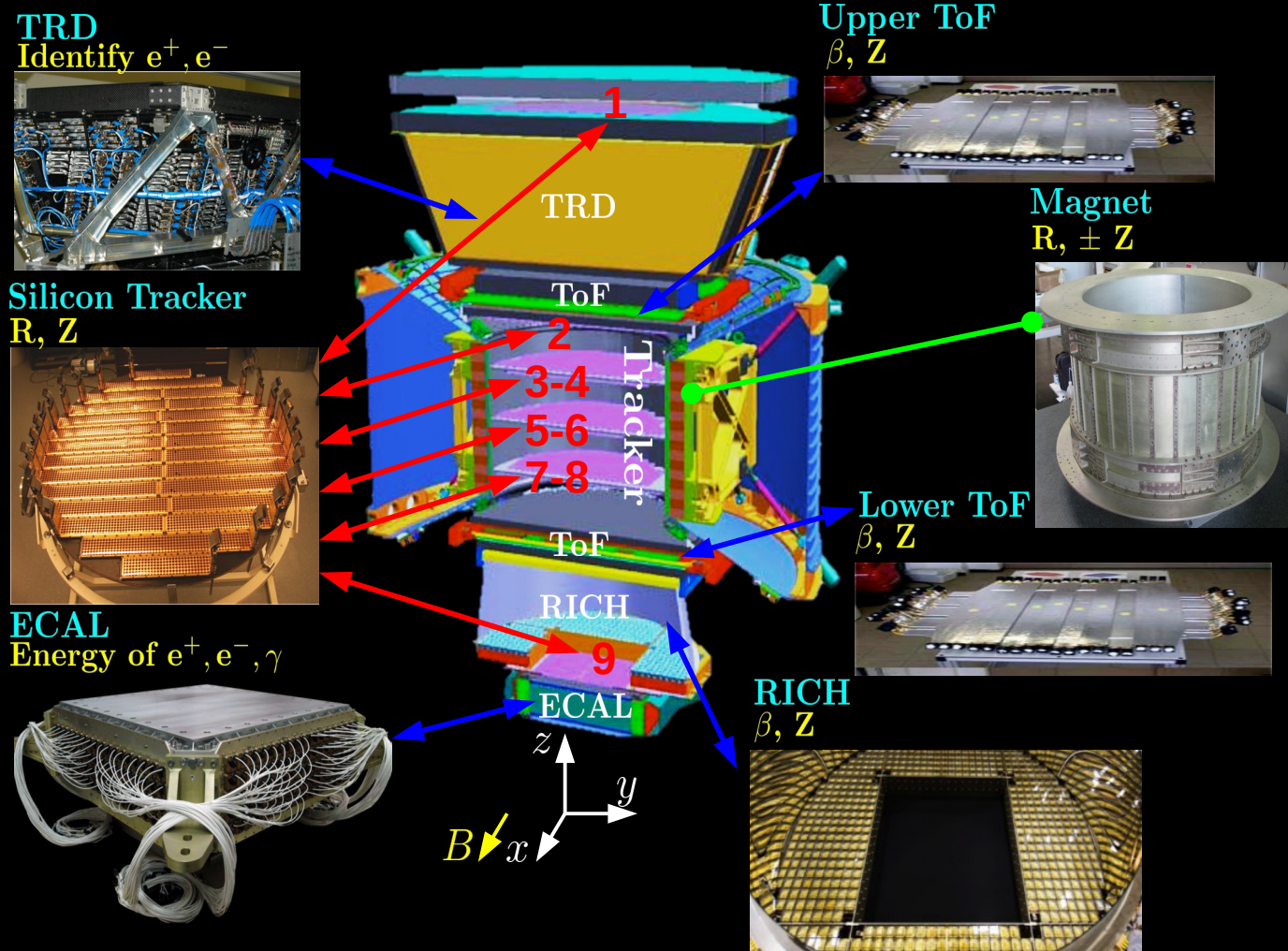
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Alpha Magnetic Spectrometer-02



Magnetic Spectrometer:

$$R = \frac{p}{Z}$$

- R : Magnetic rigidity
- p : particle momentum
- Z : particle charge

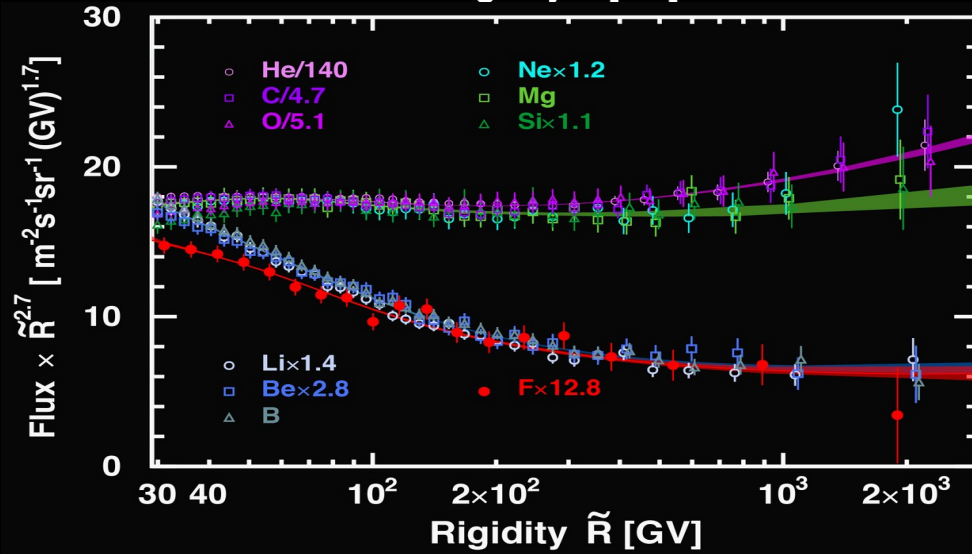
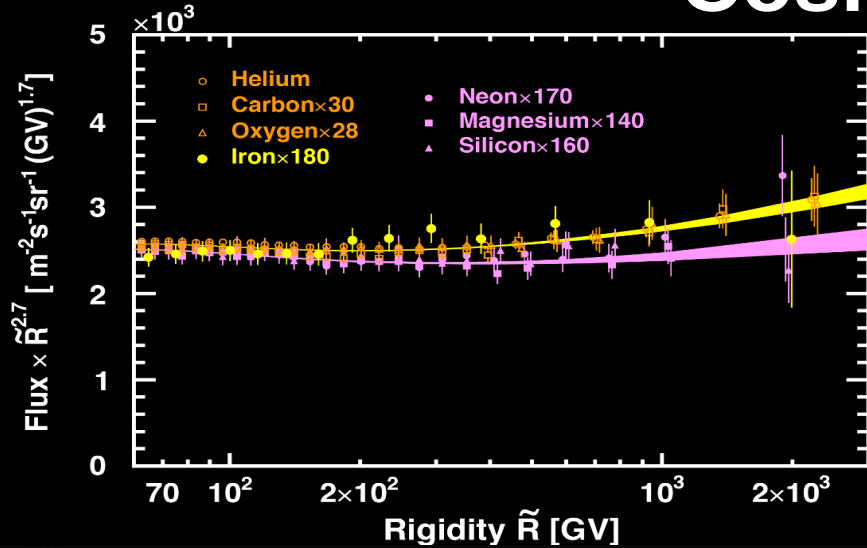
Cosmic Rays

Primaries (He-C-O, Ne-Mg-Si, Fe, ...):

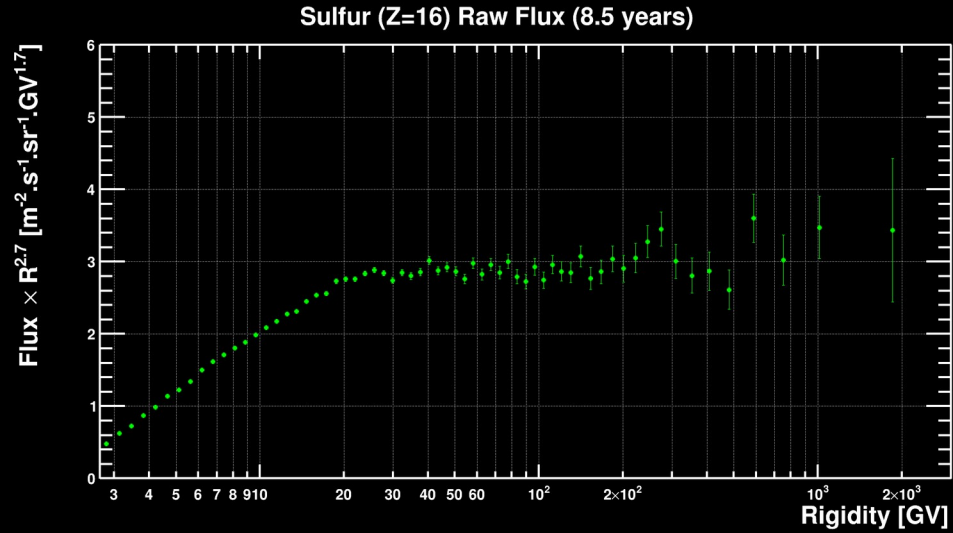
- Cosmic rays produced by astrophysical sources (Nuclear fusion in stars, neutron star mergers, ...)
- AMS unique observation of two primary classes (He-C-O and Ne-Mg-Si)

Secondaries (Li-Be-B, F, Sc, Ti, V, ...):

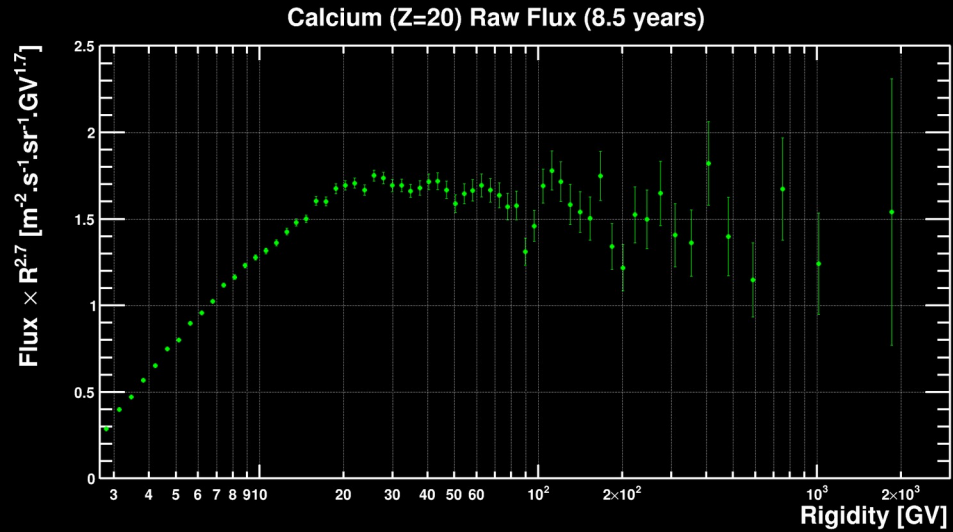
- Produced during interaction between primaries and interstellar medium
- AMS unique observation of two secondary classes (Li-Be-B and F)



How about the other cosmic rays ?



Is there other unmeasured sub-classes in cosmic rays?



I am currently working on measuring the Sulfur and the Calcium fluxes which are two primary cosmic rays

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