

## AMS 实验正负电子、反质子流强谱最新测量结果与暗物质的间接寻找

Precision measurements by AMS reveal unique properties of cosmic charged elementary particles. In the absolute rigidity range  $\sim 60$  to  $\sim 500$  GV, the antiproton flux and proton flux have nearly identical rigidity dependence. This behavior indicates an excess of high energy antiprotons compared with secondary antiprotons produced from the collision of cosmic rays. More importantly, from  $\sim 60$  to  $\sim 500$  GV the antiproton flux and positron flux show identical rigidity dependence. The positron-to-antiproton flux ratio is independent of energy and its value is determined to be a factor of 2 with percent accuracy. This unexpected observation indicates a common origin of high energy antiprotons and positrons in the cosmos.

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